

# **Montana Rail Grain Transportation Survey and Report 2006**

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## **Montana Rail Service Competition Council**

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**A Joint Survey and Analysis**

**Montana Department of Transportation**

**and**

**Whiteside & Associates**

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## **I. INTRODUCTION**

The Montana Rail Service Competition Council (MT RSCC), chaired by Mike O'Hara, was created by the last Montana Legislature, and charged under House Bill No. 769 "to Promote Rail Service Competition in State" and "to develop a comprehensive and coordinated plan to increase rail service competition in Montana."

The MT RSCC commissioned Whiteside & Associates/MDT to conduct a survey of the rail grain harvest in the fall of 2006 to build factual predicate of the transportation conditions surrounding the 2006 Montana grain harvest. Simultaneously, the MT RSCC sought evaluation and development of factual data on the amount of over the road hauling that the farm producers of Montana were experiencing today, 10 years ago and 20 years ago. With advent of shuttle 110 car grain handling facilities in the state and the loss of many rail branchlines over the last 20 years, Montana continues to see a loss of elevators and marketing outlets for Montana grain producers. The degree to which farm producers are hauling ever increasing distances has never been surveyed or quantified.

This is a joint project with Montana Department of Transportation (MDT) providing logistical support and expertise for the survey and subsequent analysis.

This survey and analysis represents one of the most comprehensive examinations of shipping patterns by Montana farm producers in the conduct of marketing their grain.

This report summarizes the finding of the survey work conducted in October, 2006 through January, 2007. Whiteside & Associates/MDOT on behalf of the MT RSCC appreciates the help and assistance Montana's premiere farm groups for their assistance in gathering survey data. The *Montana Farmer Bureau*, the *Montana Farmers Union*, the *Montana Grain Growers Association* and the *Montana Wheat & Barley Committee* all contributed time, energy and effort to ensure the broadest cross section of respondents to the Survey. The farm groups provided access through their Conventions for survey data collection. Additionally, *Montana Grain Growers Association* at their statewide listening sessions and through electronic surveys provided additional responses. Over 190 farm producers from twenty-nine counties responded to the survey.

The survey results and study analysis show distinct patterns of increasing farm producer hauling to ever more distant elevators as the BNSF moves to consolidate shipments into larger, more efficient elevators called 'shuttle elevators' moving 110 car movements and moves to shed branchlines.

The survey, while documenting the increasing hauls, also documents the increasing shift in movement from the state's primary highway system to the state and county highway systems. Lastly, the study compiles data on the delays and plugging of elevators experienced by the Montana farm producers during the 2006 grain harvest.

These results will serve to assist the MT RSCC in its efforts to develop its comprehensive and coordinated plan to increase rail service competition in Montana.

## II. EXECUTIVE SUMMARY

The survey in brief found

1. Grain is being hauled further and further primarily over the state and county highway systems.
2. The majority of farm producers have experienced increasing hauling distances over the past 10 and 20 years.
3. Those farm producers experiencing increased haulage are hauling over 3 times as far as those farm producers who have not experienced any increased hauling distances.
4. The non-wheat crops are experiencing significantly greater hauling distances than wheat crops, further burdening alternative and rotational crop practices.
5. Some counties show average hauling distances upwards of 80+ miles.
6. The 2006 harvest in Montana could be best described as a tale of two cities – with Winter wheat showing average to above average yields and Spring wheat, durum, barley, pulse, peas and lentils showing average to below average yields.
7. The vast majority of farm producers have the capabilities of storing most if not all of their grain production.
8. Even with the diversity of yields, most Montana farm producers experienced elevator pluggings multiple times during harvest – due to lack of rail cars.

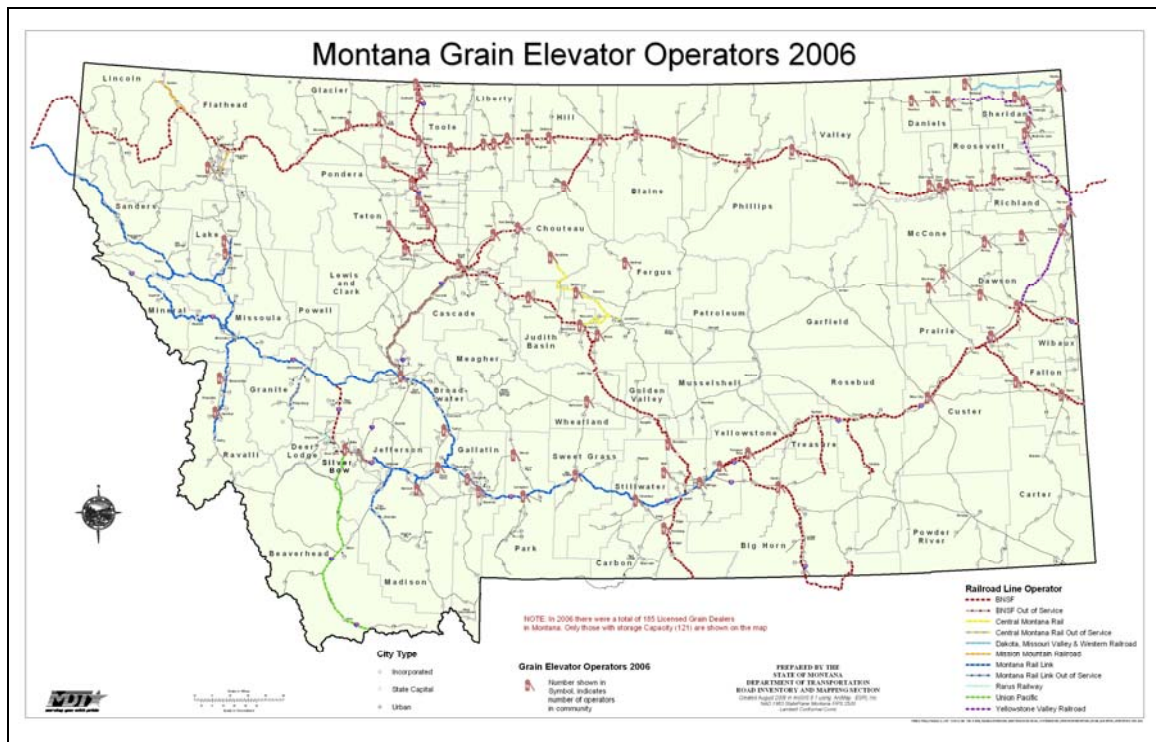
9. With the multiple elevator pluggings, most farm producers held onto to their crops and waited for the rail car shortages to abate rather than take their grain to more distant elevators.
10. Farm producers generally thought these delays and elevator pluggings were 'about average' and par for the course.
11. Farm producers are finding unloading delays at ever more distant elevators each year.
12. As the elevator system is being forced to larger, more rail efficient shuttles coupled with the loss of thousands of miles of rail branchlines in the state, the costs of transportation for gathering grain seem to be shifting from the railroads to the farm producers and to the State and local highway system.
13. The service levels do not seem to be improving with the transition to larger grain handling facilities.

### **III. Farm Producers Are Unique Rail Transportation Users**

Growers of wheat and barley are unique in the rail transportation world. They generally bear but do not directly pay railroad freight rates and charges. In Montana, growers are captive in a large part because virtually all grain shipments are handled by just one railroad system, BNSF or its affiliates. The BNSF controls 91% of the rail mileage, and 92% of the business. Montana is ranked #1 in the U.S. for concentration of railroad lines.

In 1984 Montana had over 189 elevators operating in the state. By 2006, that number was down to about 121. The BNSF program of offering lower rail rates to 110 car shuttle facilities will continue to put economic pressure on less-than-shuttle loaders, thereby resulting, in all likelihood, in reduced numbers of Montana elevators available in the future to handle wheat and other farm products in the State.



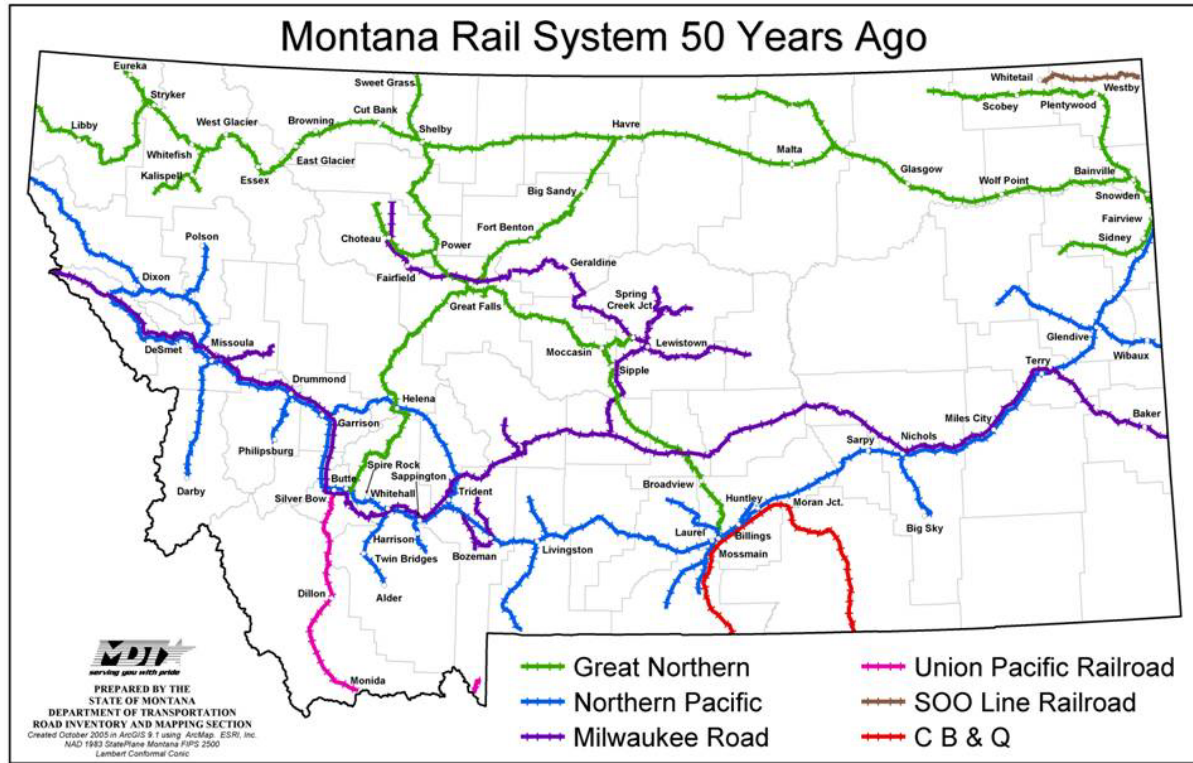


The result is that farm producers marketing their grains, are being required to haul their grain further and further each year. Never before in Montana has any quantification been made of the increase in hauling by the farm producers.

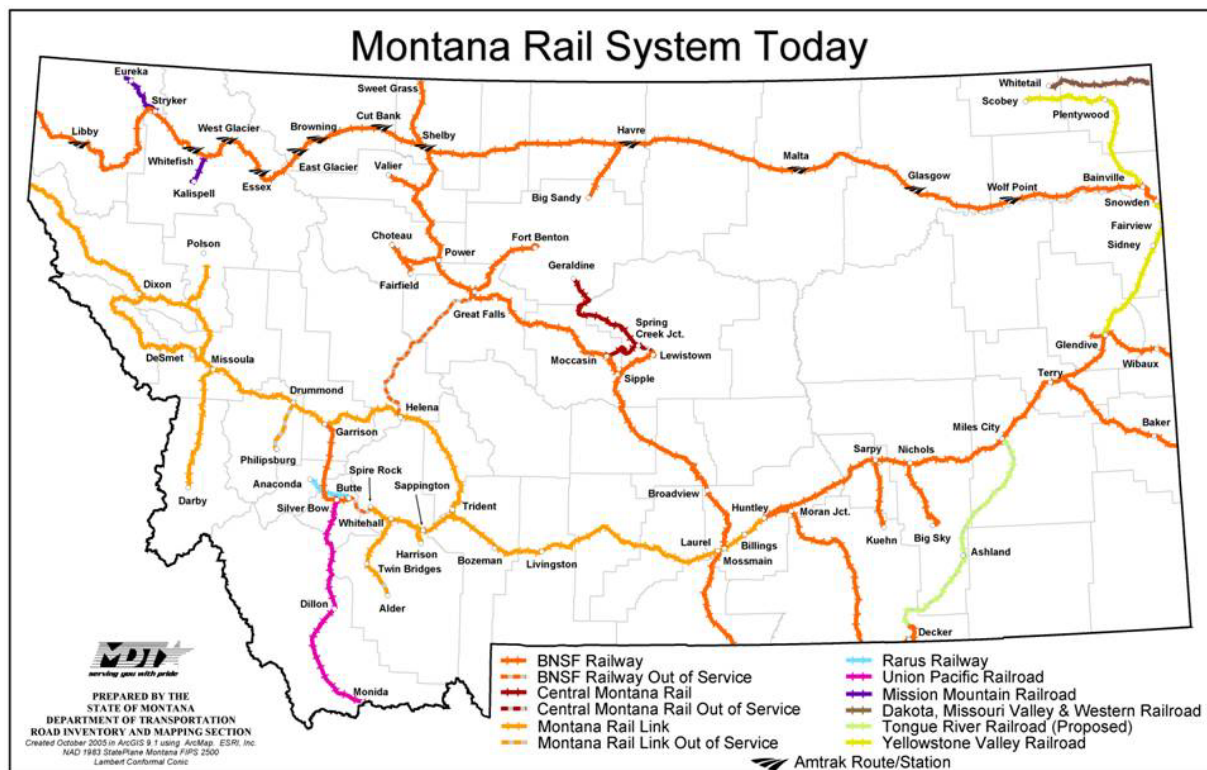
The BNSF has embarked on a program of encouraging, through rate differential and other incentives on a shuttle 110 cars, the development of larger rapid loading elevator facilities.

## IV: BASELINE FOR THE MONTANA 2006 RAIL GRAIN TRANSPORTATION SURVEY AND STUDY

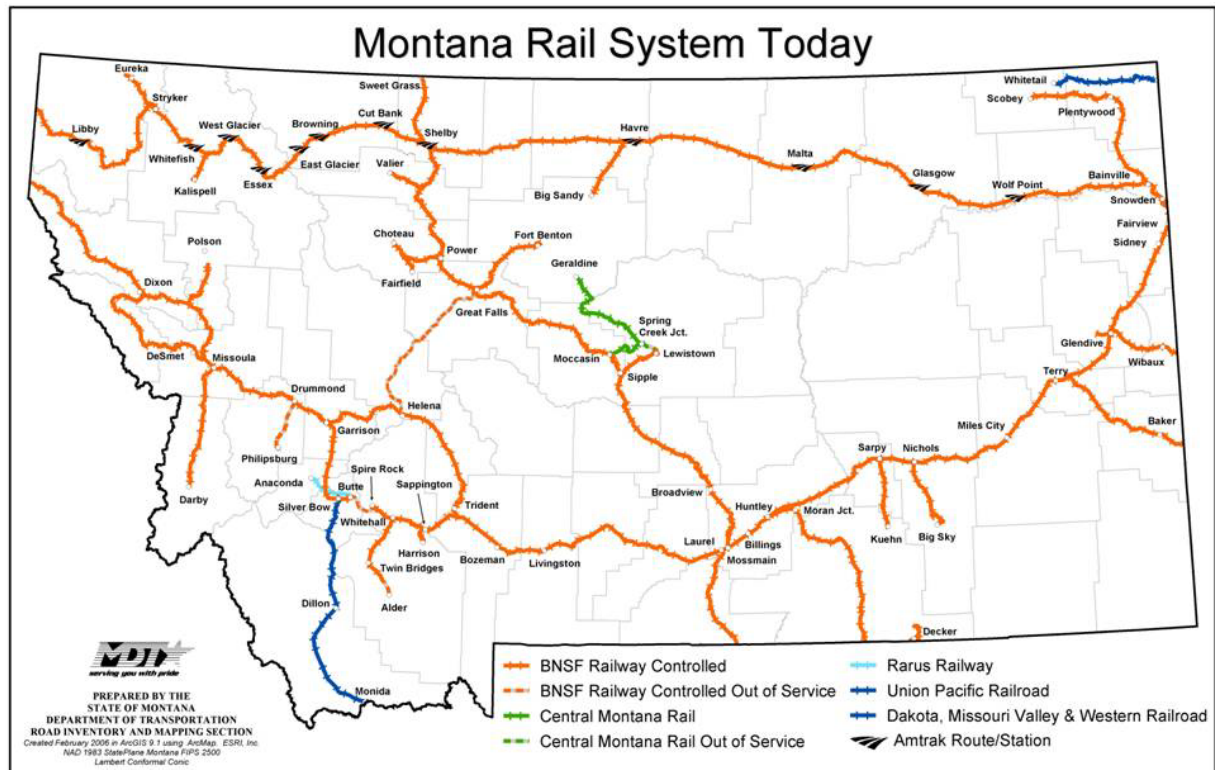
### Montana Rail System – a look back in history







When looked at from the perspective of economic control (ability to price rail service) the Montana rail system is dominated by a single railroad.



## Montana's Rail System is Shrinking

1975: 5,100 miles  
2005: 3,200 miles

## Dominant Class I Railroad (BNSF)

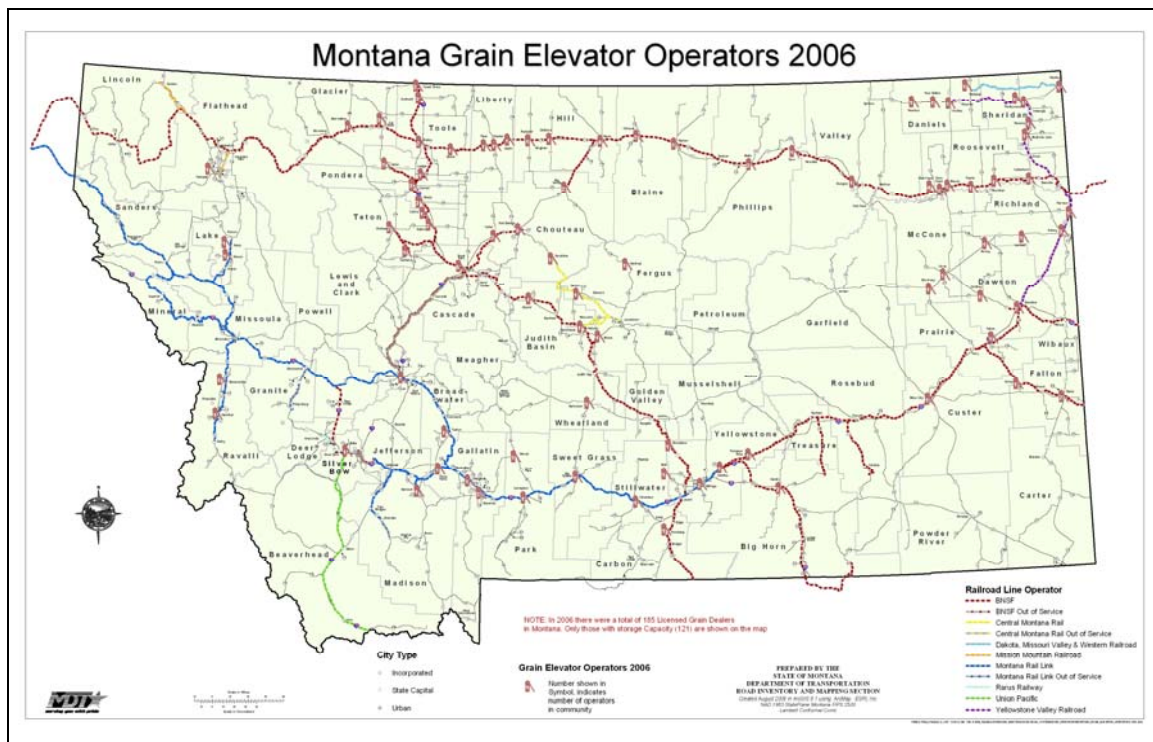
94% of Montana's rail system-#1 in US  
91% of tons hauled  
92% of revenue

## Developing Trends

- Increased short lining & potential abandonments
- Transportation cost shifting from Railroads to Farm producer and State and local governments
- Decreasing intermodal facilities
- Decreasing number of grain elevators and marketing outlets for Montana agricultural crops

## Montana Grain Elevator System – a look back in history

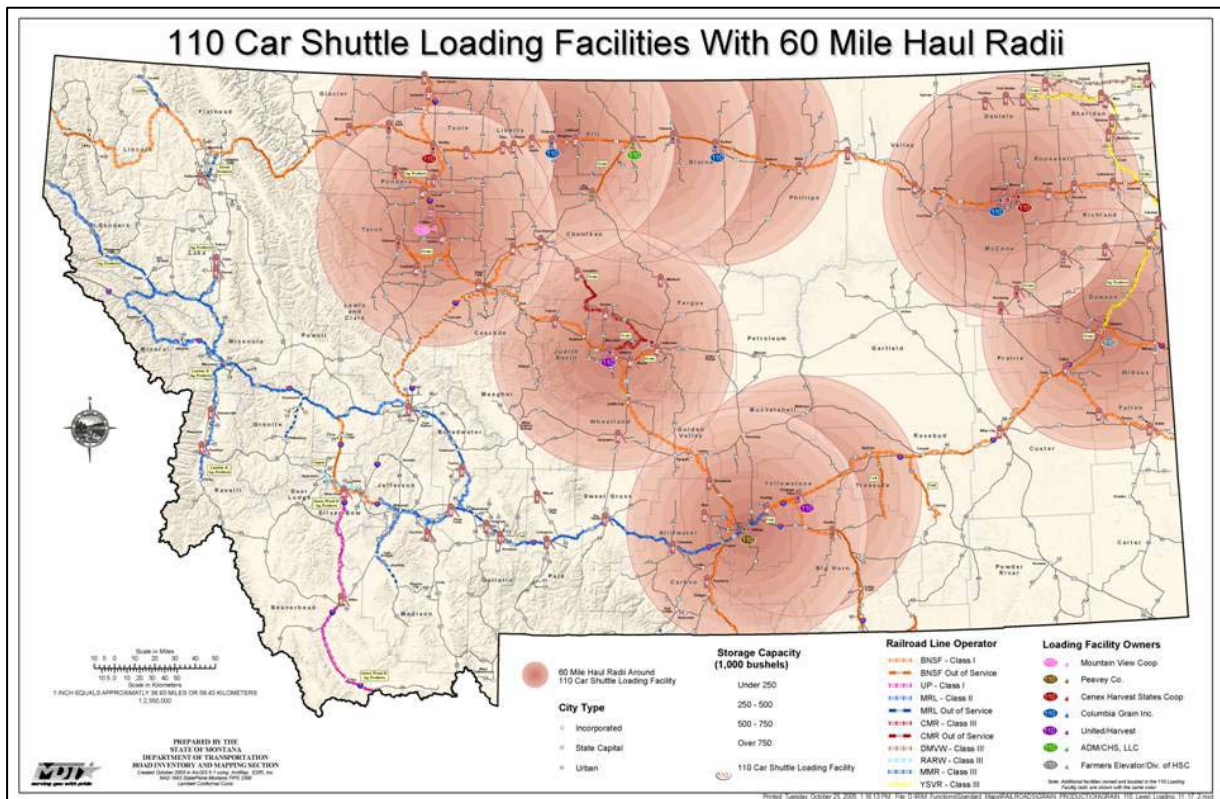
In 1984, the Montana grain elevator system consisted of over 189 elevators. Most of the facilities in Montana were 52 and 26 car loading facilities with the rest being facilities that loaded single cars.



In 2000, the BNSF started providing economic incentives to elevator companies to push for construction of Shuttle loading facilities capable of loading 110 car trains. Today, Montana has 11 shuttle facility locations (three more planned or under construction – Carter, Moore and Westby) and the map below shows



each facility location with a 60 mile radial circle around to simulate potential drawing area. In fact, shuttle facilities may draw upward to 100 miles against smaller elevator facilities which have higher freight rates.



## V. SURVEY AND STUDY RESULTS

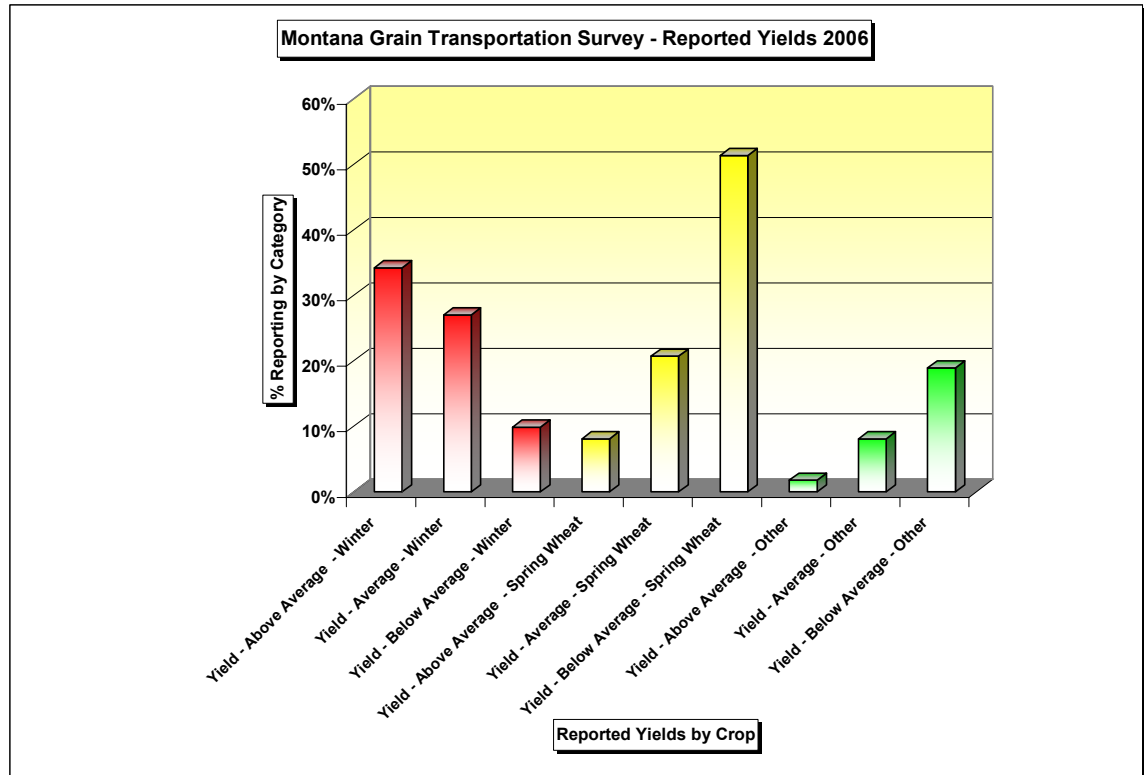
### Grain Yields:

In Montana, 2006 was a year in which yields were both above average or below average depending on the crop being grown and the location of the growing area. Montana is a large state and traditionally produces the third largest wheat crop of any state in the U.S. Part of the state grows winter wheat (wheat that is planted in the fall – goes dormant in the winter – and then grows to matur-

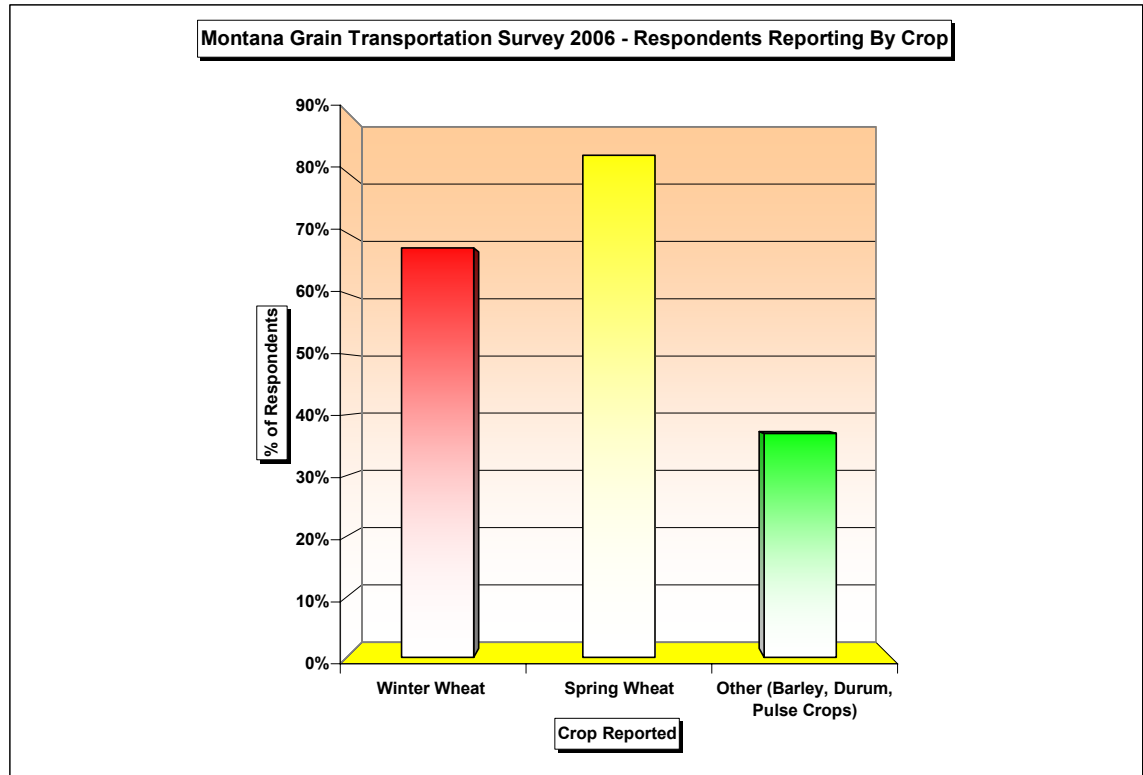
ity in the summer), spring wheat (which is planted in the spring for maturity in the summer), barley (which is planted in the spring for maturity in the summer), durum (which is planted in the spring for maturity in the summer) and various peas and lentils which are planted in the spring for maturity in the summer.

Much of the U.S. central plains area suffered from a below-average wheat crop during the 2006 harvest due to very dry and drought conditions. However, parts of Montana produced above average crop yields while other parts had less than average yields. Generally, the winter wheat crop was above average and the spring planted crops were at or below average.

The reported yields by the respondents to the study clearly showed this variance in production. Even though the study showed a mix of both spring and winter crops coupled with the fact that the central plains had lower than average production, farm producers in Montana still had major transportation delays. Elevators were often "plugged," that is, they could not accept more grain because they were at full capacity. Rail service problems appear to be a major cause of these conditions, which occurred despite the fact that rail rates and charges on Montana grain shipments are extremely high.



The study showed a general balance for the crops harvested in Montana, geographically the 4<sup>th</sup> largest state in the Union. Over 70% of the respondents grew winter wheat and over 80% of the respondents grew spring wheat and approximately 40% of the respondents grew other major crops (barley, durum, peas, lentils, etc.).

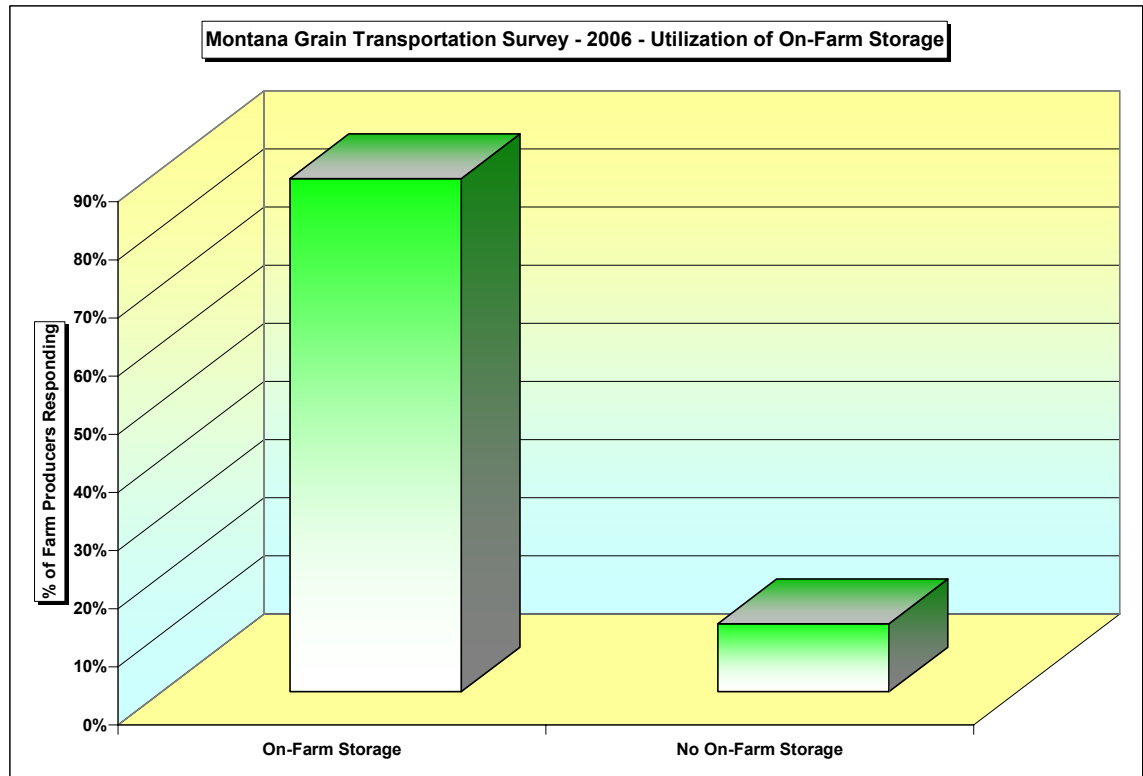


Over 88% of the farm producers responding to the survey had on-farm storage with the ability to store some or the entire crop after harvest before delivery to the grain elevator. This has become a necessity given current price fluctuations and transportation delays.

One of the inquiries by a Rail Service Competition Council member was, “As a result of changed weather patterns and the shortened harvest window, is it fair to assume these are driving factors for storing more and more grain on the farm?” An additional comment – producers are also storing fertilizer as well, because it is cheaper during the summer and early fall.

The primary driver in the past for on-farm storage was government programs encouraging (incentives) to build on-farm storage. More recently, the farm producers find that there is a year round market for grain and marketing prac-

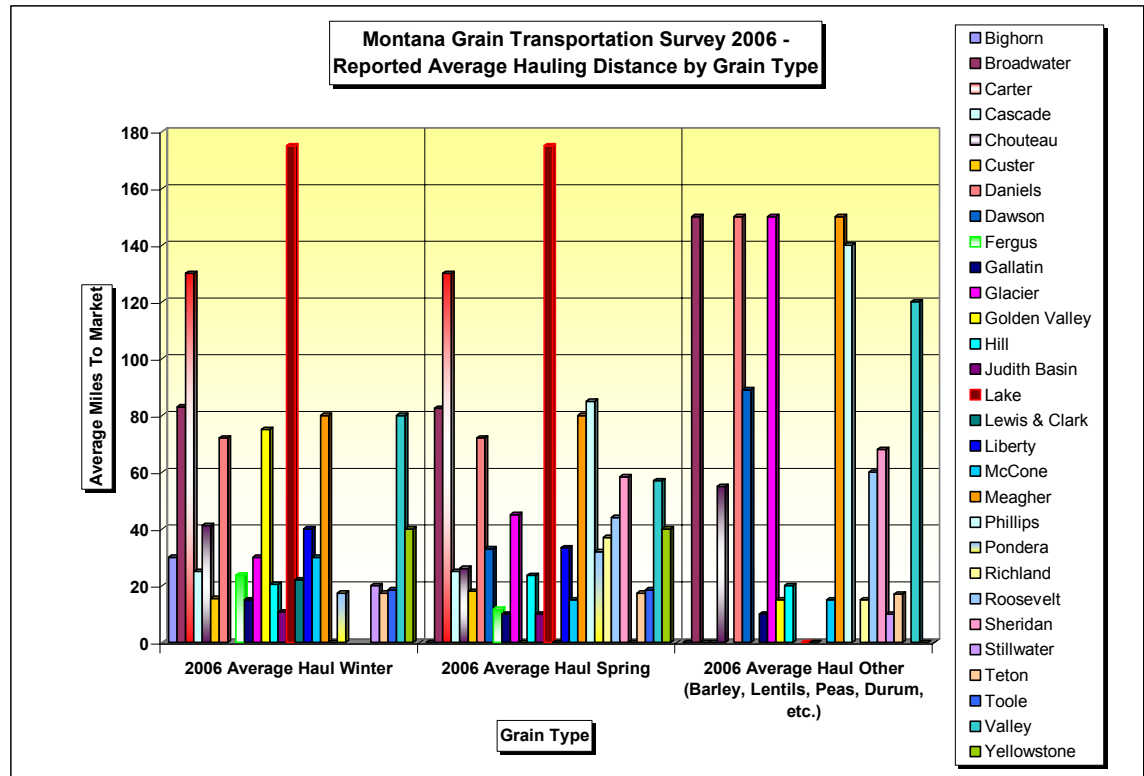
tices, hedging, etc. and on-farm storage allows forward contracting and timing deliveries around more favorable pricing. However, many farm producers indicated in their responses, that one of the main driving forces for on-farm storage today is to make sure that all of the grain harvested on the farm can find covered storage.



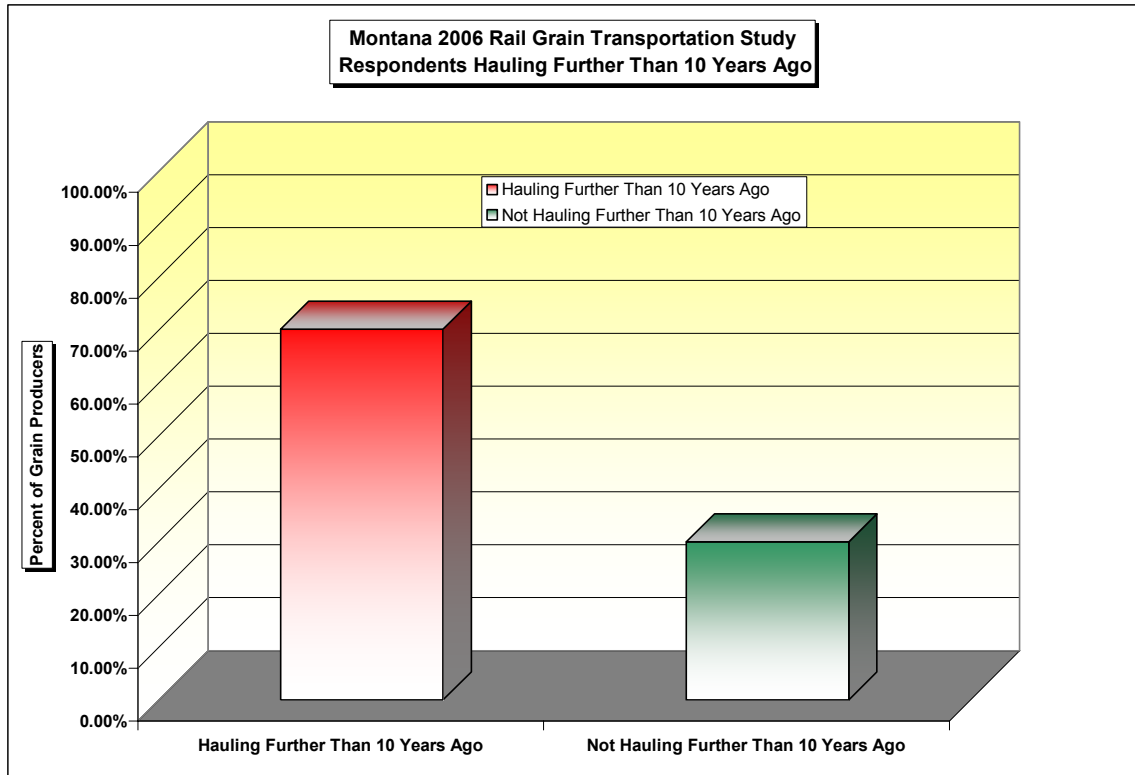
Grain producers from twenty-nine counties (virtually all of the grain producing counties in Montana) reported a range of average hauling distances to the marketing elevator for the 2006 season, as shown in the graph below. Clearly the distances vary with the counties and the crops. The greatest distances shown on the graph are for producers in Carter County at 130 miles (one way) and Lake County at 175 miles (one way) for both winter and spring wheat. It is



also clear from the graph that 'Other' crops (durum, barley, peas, lentils and other pulse crops) show higher hauling distances. But the real question is how have these hauling distances changed over the last 10 and 20 years?

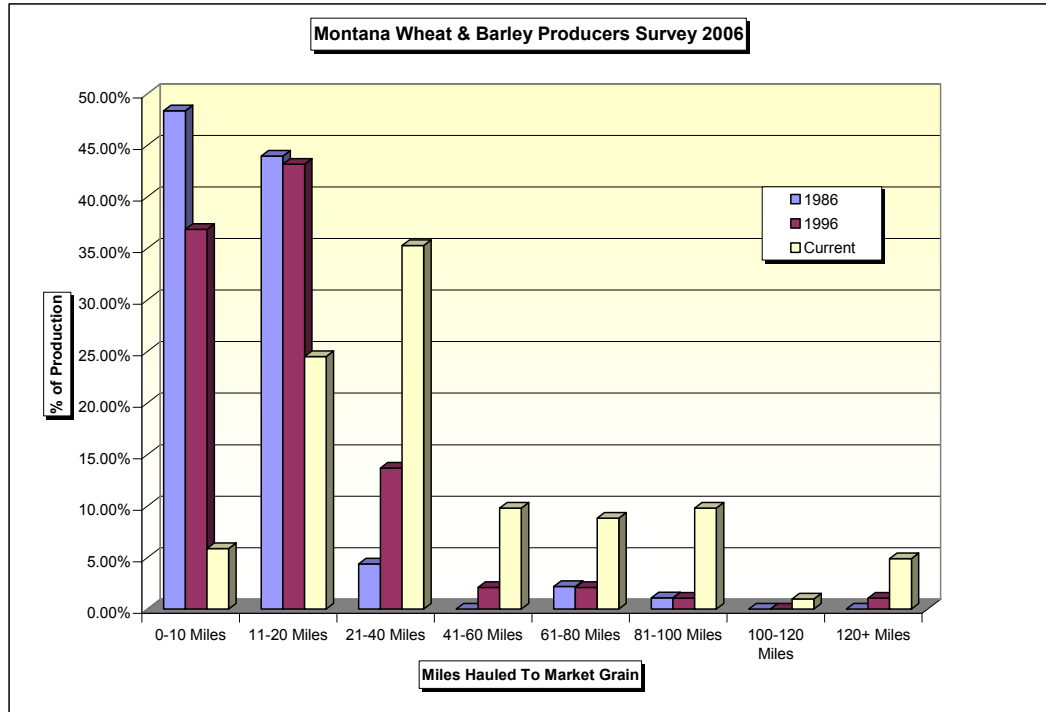


The survey requested respondents to indicate whether their hauling distances have increased over the past 10 years. Over 70% of the Montana grain producers are hauling their products farther than they were 10 years ago, and

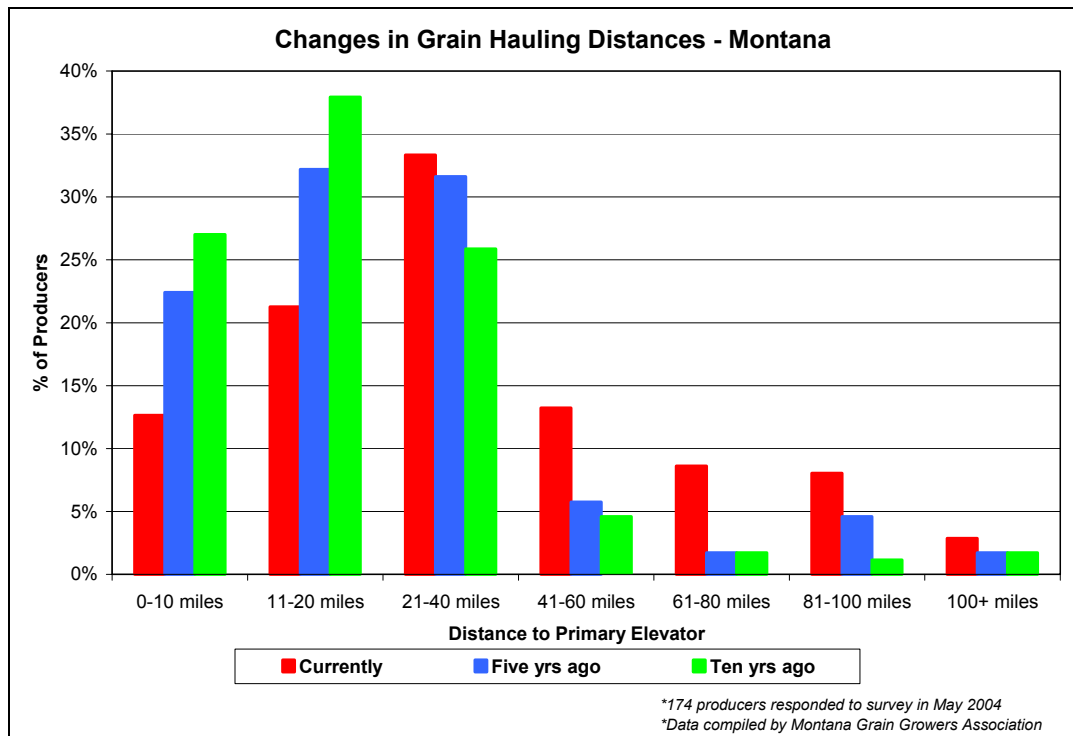


100% of those hauling farther than 10 years ago are also hauling farther than they were 20 years ago. This trend reflects the transition to a smaller number of elevators located in the state.

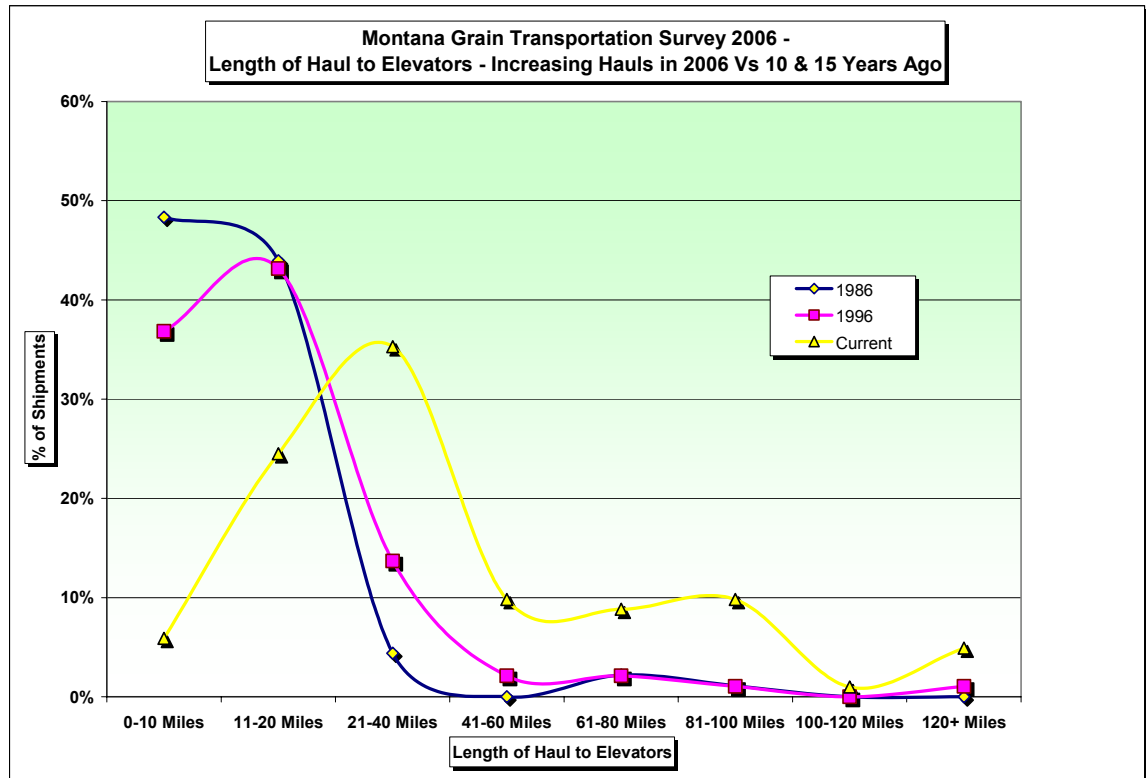
When the distances are tracked for all respondents, it is clear that the average distances are continuing to increase substantially – mirroring the results of the 2004 Montana Grain Growers Association study previously presented to the MT RSCC.



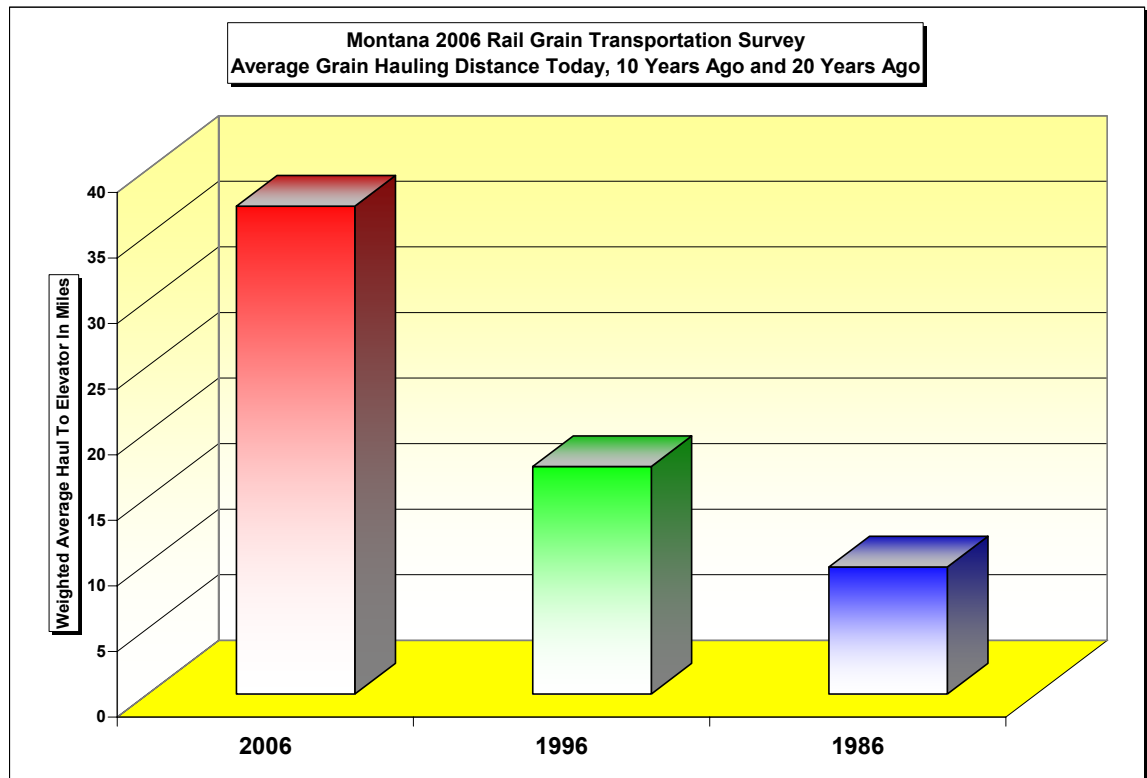
When displayed in a bar graph, the trend of ever-increasing longer hauls is clearly demonstrated. The Montana Grain Growers Association study conducted in May, 2004 shows very similar trend results, supporting



the results in the MT RSCC Montana Rail Grain Transportation 2006 study. The evidence is thus strong that the trend to longer and lengthening hauls is real. It is also noteworthy that the number of hauls with average mileages in the 41 to 100 mile blocks has increased dramatically in the last 10 years.

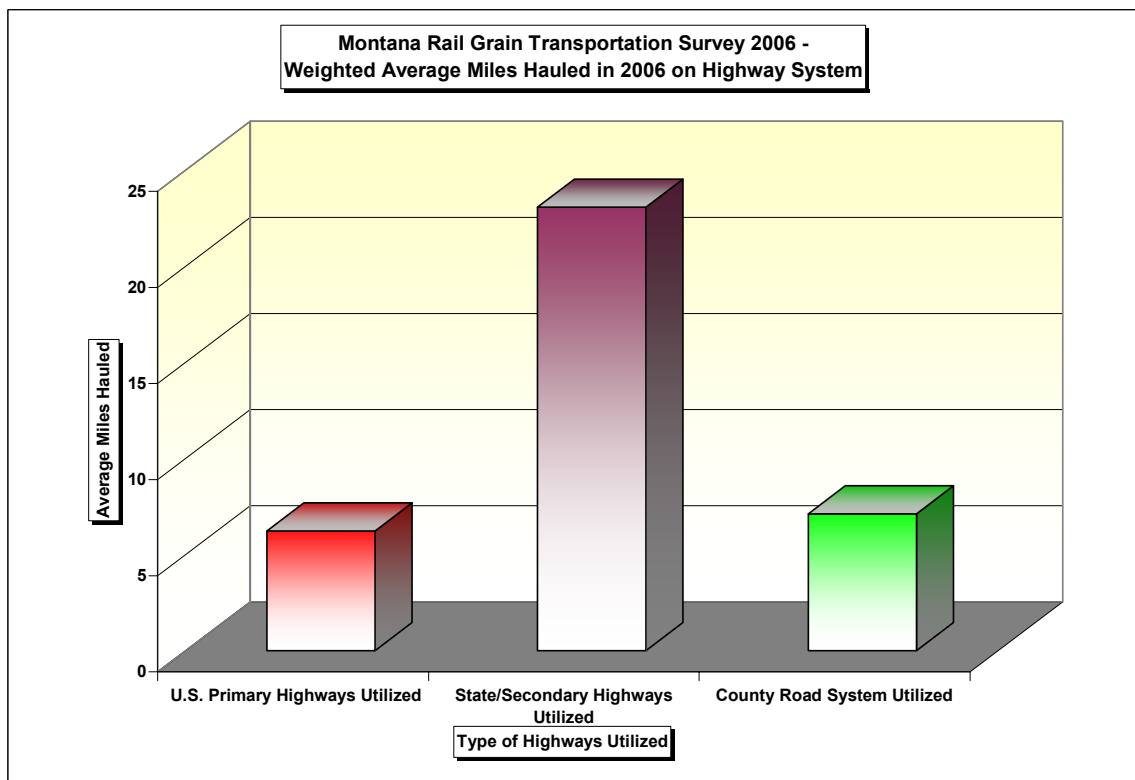
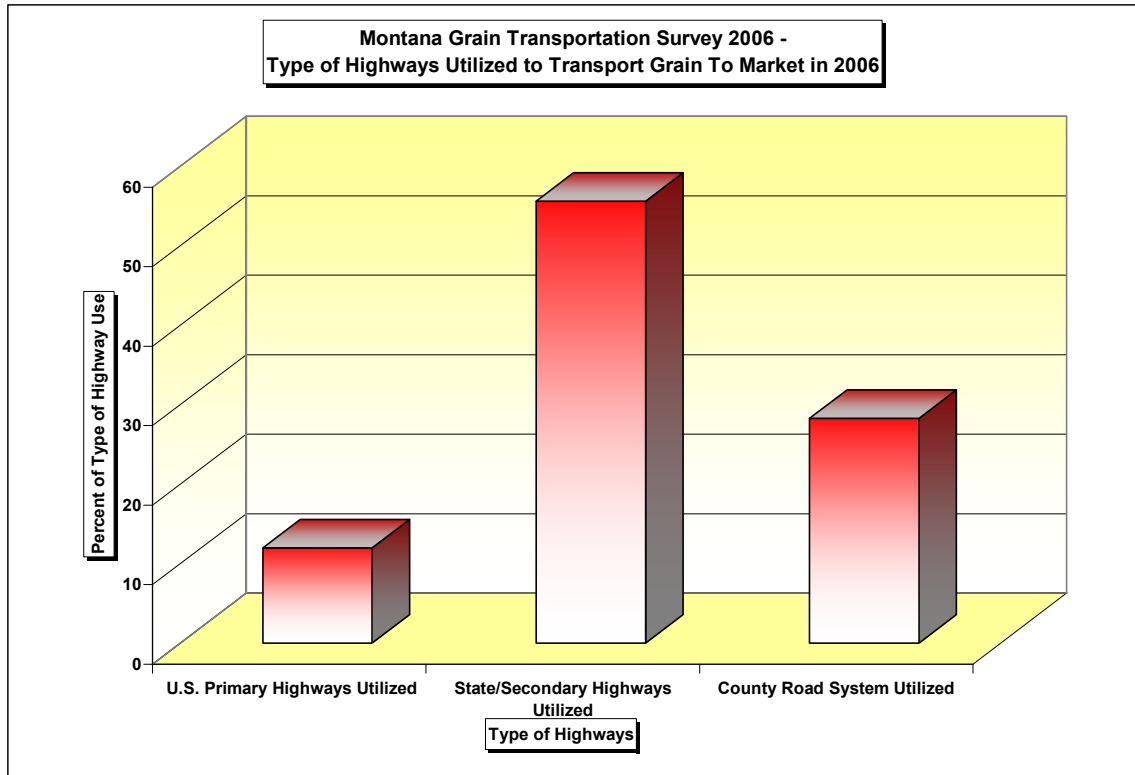


The data from all respondents shows an average one way haul today of 37.19 miles compared to an average haul of 17.35 miles 10 years ago (an increase of 114%), and 9.69 miles 20 years ago (an increase of 285%). Notably, 70% of all respondents are showing increases in hauling distances.



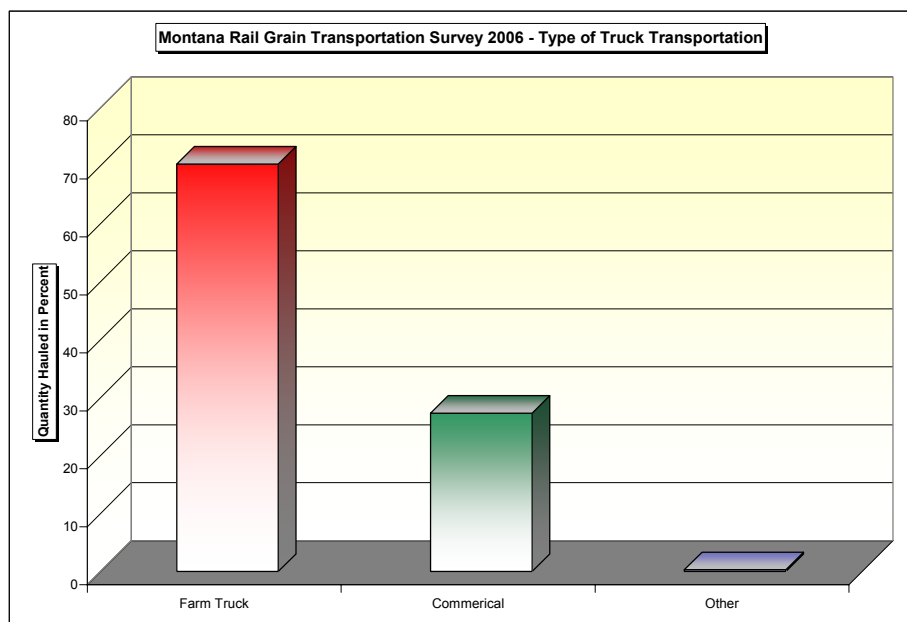
Additionally, this increase in average haul takes place predominantly on Montana's secondary highway system. Thus the movement to fewer numbers of grain elevators served by BNSF and its affiliates has led to increased costs and burdens to producers trucking farther and farther, and increased costs and burdens to the State of Montana in higher highway maintenance costs – particularly on State secondary highways.

It is significant that these added trucking and highway costs are locally borne costs.

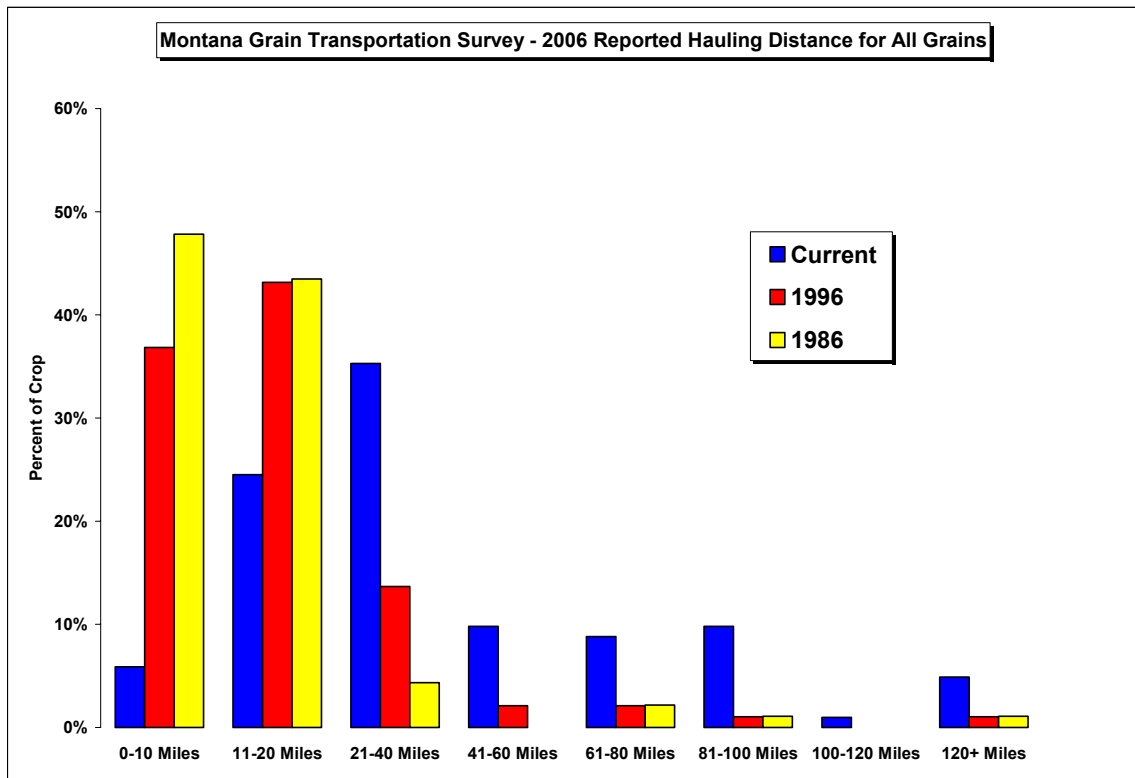


The evidence contained in the MT RSCC study shows that while the railroads are claiming nationally a downward trend in rates per ton-mile might be occurring, the cost to the Montana grain producers and the Montana governmental entities are simultaneously rising with the transfer of costs and burdens from the private railroad sector to the public sector and the farm producers.

Over 70% of the initial farm hauls occur in Farm trucks with about 27% occurring in Commercial trucks. Farm trucks are generally smaller capacity vehicles, requiring repetitive trips to move a farmer's crop to an elevator for rail shipment. Longer and more frequent hauls mean a greater investment in labor, fuel and truck costs.



The crop percent overlaid by the average hauling distances shows that the hauling distances are continuing to spiral upward.

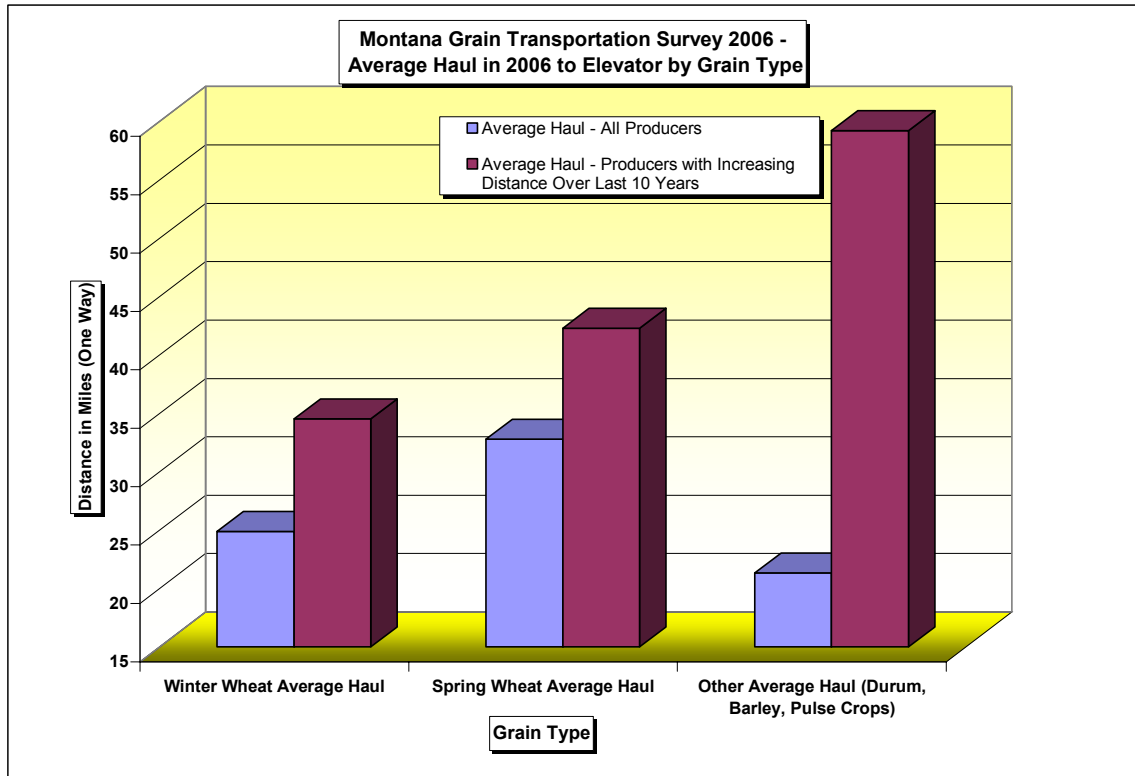


As the railroads move the grain industry to shuttle elevators and away from single, 26 car and 52 car loading facilities, the grain elevators to which producers need to haul their grain are becoming ever more distant. These increased costs of gathering are being shifted to the farm producers and the state and local highways in virtually every mileage block looked at in the study.

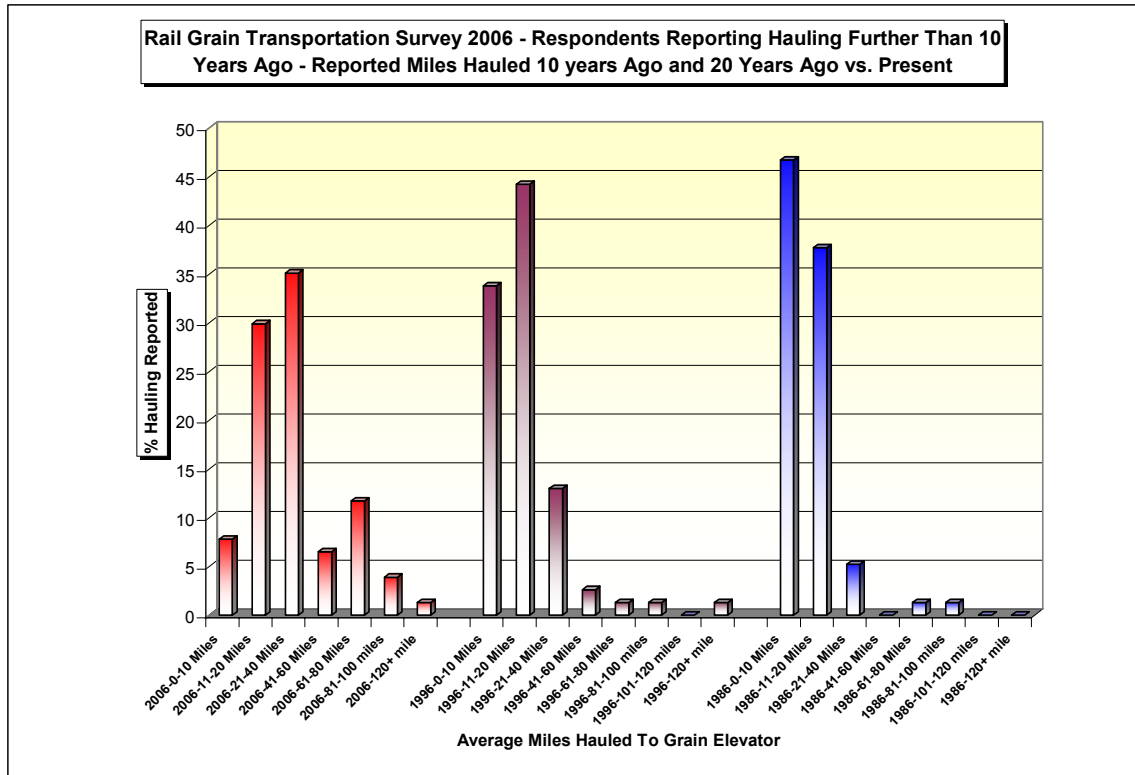
One of the most important findings of the study centers around the graph below. The farm producers reporting increases in hauling distances over the last 10 or 20 years are showing current average hauls much higher than farm producers who are still able to use nearby elevators. It is clear that the burdens and costs of increased hauling are not falling on every producer but are concentrated



most heavily on those who have lost access to local elevators are thus more cap-  
tive.



The graph below breaks out by mileage blocks and by year the average  
hauling distances, allowing the study to look at the individual components that  
make up the increasing distances hauling.

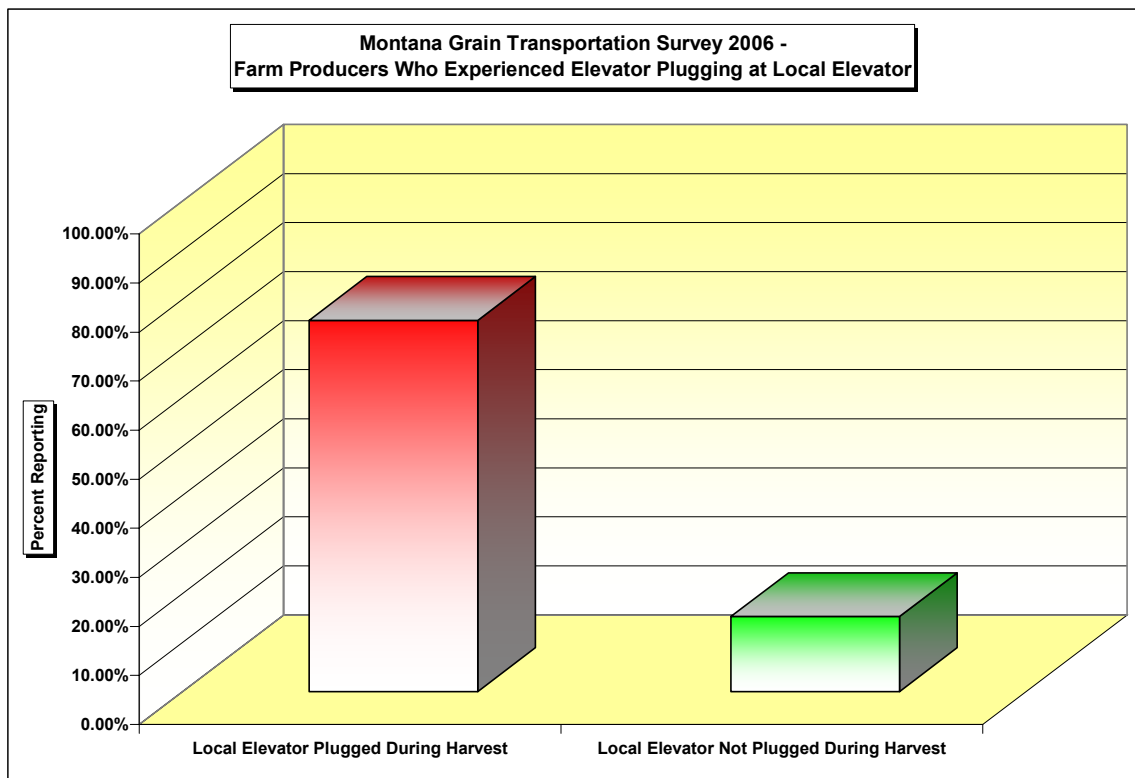


One RSCC member during the draft review commented, “as the survey showed drastic increases in distance to haul products, the cost of increased traffic on the highways and maintenance to the highway can now be calculated. There is now a definite connection between a profitable railroad and a shift to state government road maintenance.”

A second comment by a RSCC member was “that there is a tremendous risk to the producer that did not exist 20 years ago – in liability, truck driving, equipment, traffic safety, etc.”

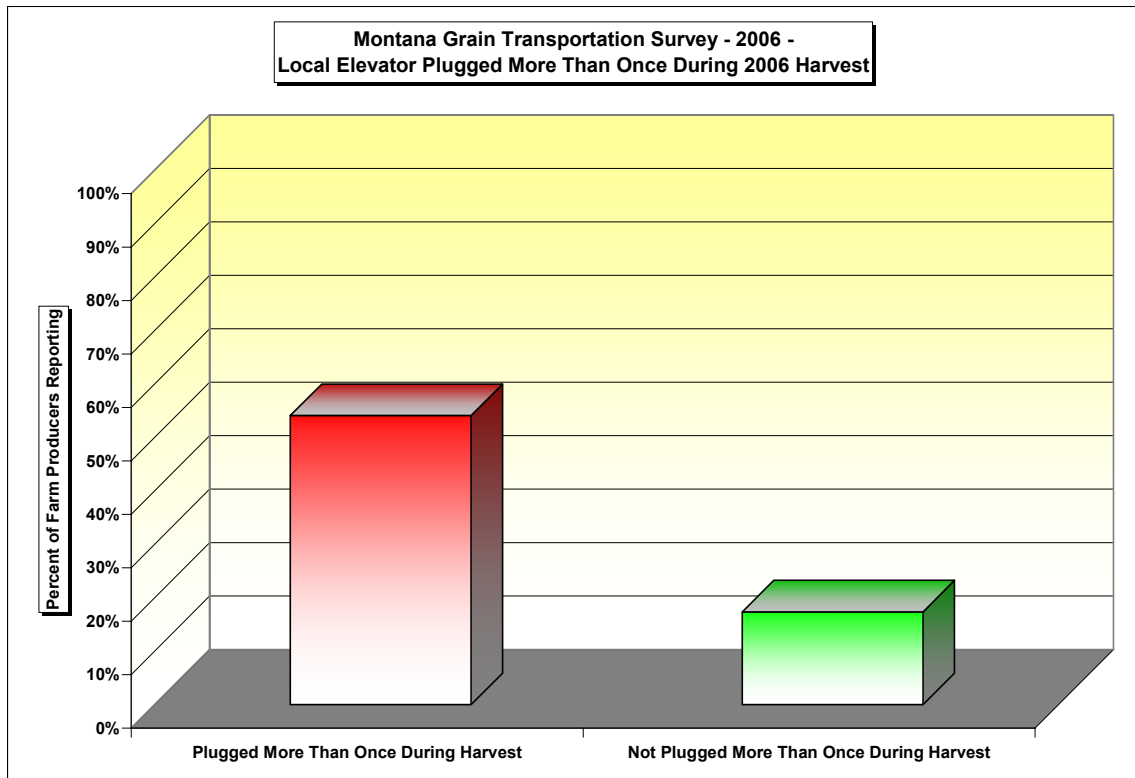
## VI. EVEN THOUGH THE MAJOR GRAIN PRODUCING AREAS IN THE U.S. (OUTSIDE OF MONTANA) SUFFERED BELOW AVERAGE PRODUCTION, MOST OF THE MONTANA GRAIN PRODUCER RESPONDENTS REPORT EXPERIENCING MULTIPLE PLUGGING OF THE ELEVATORS

Over 78% of the grain producers responding to the survey reported experiencing elevator plugging during the harvest.



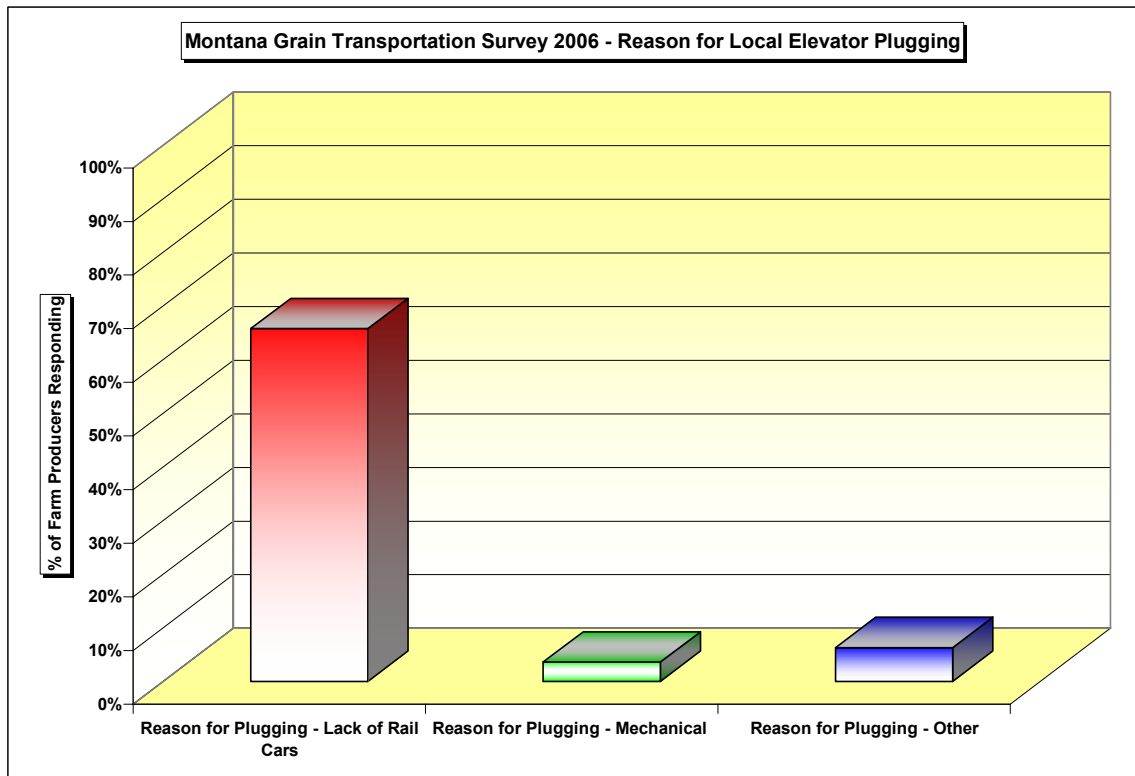
The Montana harvest comes at the end of the U. S. harvest cycle, due to the State's northern location, and in 2006, came on the heels of major reductions in crop production experienced elsewhere in the Great Plains due to dry conditions. These reductions in grain volumes outside Montana should have enabled railroads serving Montana elevators to improve their service.

Additionally over 54% of those grain producers reporting elevator plugging during the 2006 harvest saw multiple pluggings during the harvest season.



Over 67% of the grain producers reported that the major reason for the plugged elevators was lack of rail cars. That, in turn, may be in part a function of other carrier issues such as lack of locomotive power or ordering patterns by grain elevators. In conversations with elevators and railroads, the study found that each party focused on each other as the sourcing of lack of rail cars available to move the grain. Thus, it may be that the grain producers are concluding that the pluggings are occurring due to 'lack of rail cars' may be due in part to

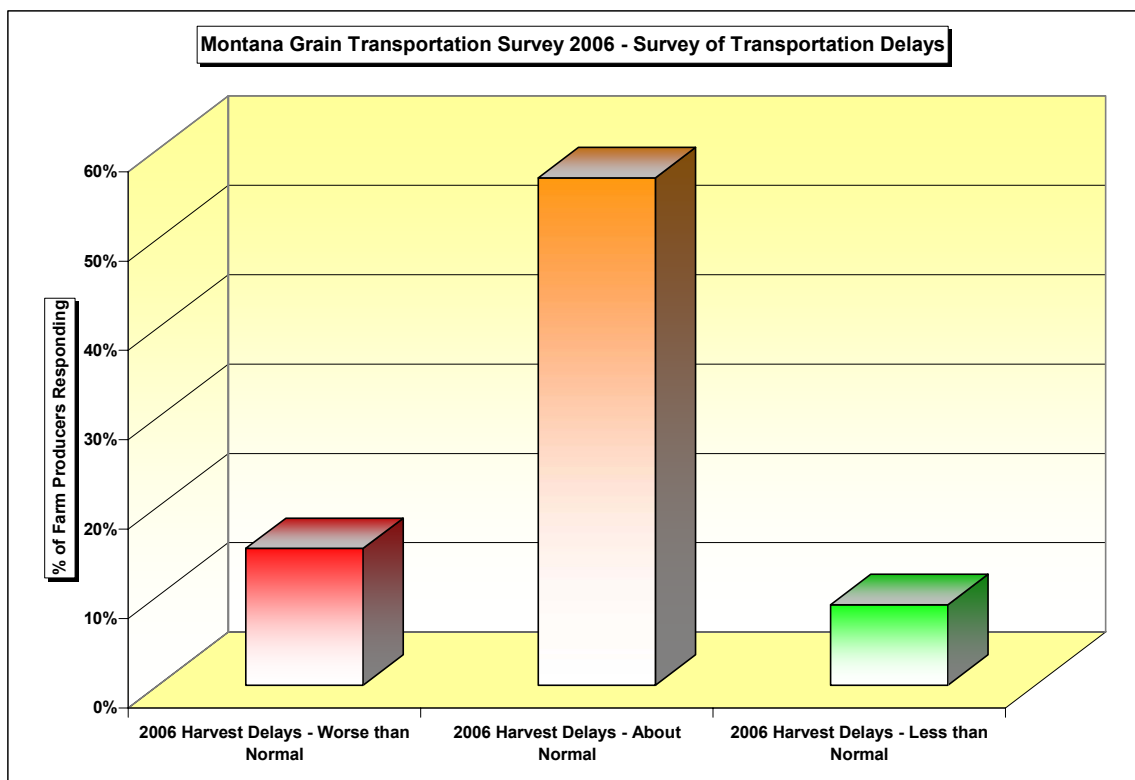
conclusions drawn from the conversations with their grain elevators or merchandisers.



Although these results are evidence of disruptive problems, the farm producers responding to the survey felt that their poor service was essentially "business as usual" for the railroad. It is curious in a year where U.S. crop production was below normal that inconsistent service is the norm to those who pay some of the highest, most profitable transportation rates in the nation. Many of the farm producers responding to the survey pointed out that in 2006, Montana had crop yields both above and below average, yet production on the central plains as a whole was below average. Yet, Montana producers were faced with the "normal" rail car shortages and reports of plugged elevators.

It may be understandable that railroads do not keep a car supply on hand to meet system-wide peak demands. But by the time the Montana harvest occurs, wheat harvests in the lower plains states are over and corn movements have not started in earnest.

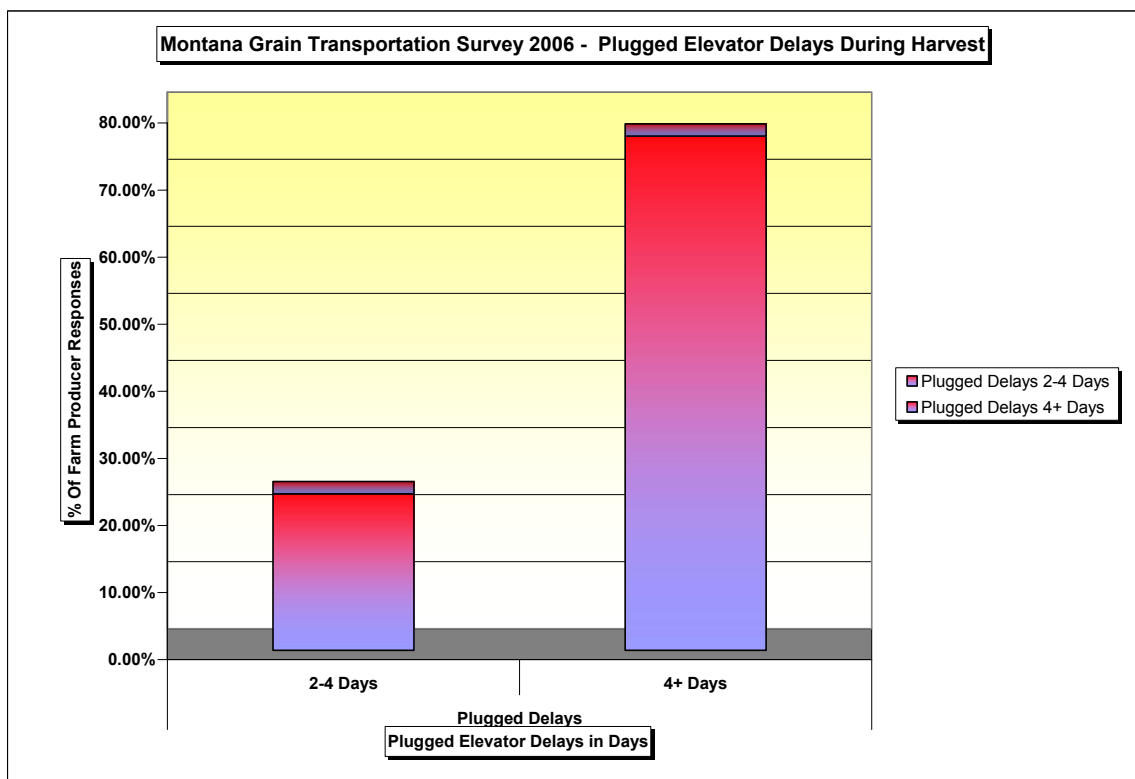
Many comments accompanied the survey returns and while space do not allow for a complete listing, one interesting comment suggested that farm producers "don't expect good service from the railroad even though they pay over 40% of the price of their wheat to the railroad, nor do they expect the STB will ever do anything about it."



The preliminary results already show that farm-to-rail costs are continuing to increase and that railroads may be achieving their own internal operating effi-

ciencies at the expense of the farm and public sectors. Some areas are experiencing truck hauls of over 100 miles one way to deliver grain to an elevator.

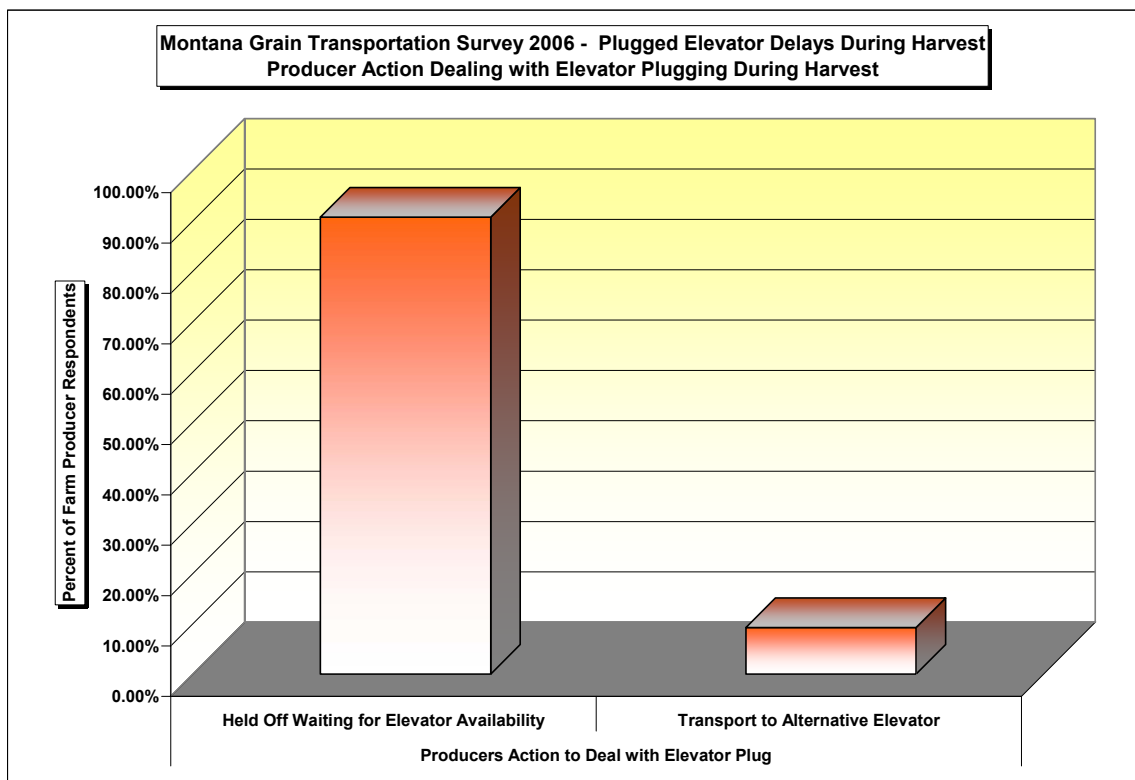
Car shortages occur more frequently at non-shuttle origins than at shuttle elevators according to survey respondents, which provided another forced inducement for grain producers to use carrier-preferred shuttle elevators. The resulting frequent delays create powerful incentives for shifts of grain to shuttle elevators, because farm producers depend for their livelihood on a crop produced once a year, and the price for that crop can fall dramatically when delivery opportunities are missed due to poor or delayed rail service.



The long distances to alternative elevators meant that, over 90.7% of the time, farm producers held onto their grain and waited for railroad cars to arrive so the elevator could be unplugged. The railroad, due to its market dominance and

the corresponding lack of market alternatives for the farm producer, has little risk of loss of traffic because there is no effective competitor to provide an alternative marketing option for grain producers in the event of delays.

One of the questions asked by a Rail Service Competition Council member during review of the draft report was, “Do longer hauls result because of the search for a better price or because of fewer elevators.” The chart below would suggest that when a farmer’s main elevator cannot accept additional grain (78%



experienced multiple pluggings), rather than shop (price or availability) over 90% of the respondents indicated they “hold off waiting for the elevator” to be able to accept additional grain. Thus, in most farm producer’s situations, the availability of viable alternatives to the main source elevator whether it be price or demand driven is not an option. The study results show a strong correlation between the



loss of elevator choice (down over 35% in number since 1984) and the distances driven (up 284% in last 20 years).

While the railroads frequently cite national statistics showing "decreasing rail rates," any reported decrease here in Montana appears to be offset by escalating cost shifting to farm producers and state/local governments.

## **VII. DISCUSSION - Impacts of Shuttle Train Rate Structures and Policies on Competition and Highway Costs.**

Railroads find it more efficient in transporting grain to operate large (100 to 110 car) shuttle trains than to operate smaller units, such as 26-car trains. An increasing portion of wheat, which is the principal crop in the Great Plains and the Pacific Northwest, is moving in shuttle train service. There is no doubt that the shuttle concept provides for more efficiency for the railroad and perhaps for the elevator company that operates the origin shuttle elevator. However, this trend has decidedly negative impacts on other important segments of the various state economies, as well as on the State of Montana as a whole over the long run.

A grain train shuttle origin requires special investments of a significant nature in order to realize the maximum economies from shuttle train service. The freight rate applicable to a shuttle train is lower than the freight rate applicable to a similar-sized ordinary unit train for which a shipper makes no repetitive shuttle train operating commitment. Freight rate reductions for shuttle trains become more pronounced if the shipper commits itself to operate the shuttle train for an

extended period of time, as provided in BNSF's tariff. A shipper will not undertake such a commitment without access to origin and destination elevator facilities that can meet the specially-tailored operating conditions under which shuttle trains can receive even further reduced rates.

The grain shuttle train economic incentives offered by BNSF Railway, the primary carrier serving Montana, include a payment of \$100.00 per car if the shuttle train is loaded at origin within 15 hours, and an additional \$100.00 per car at destination if it is unloaded within 15 hours. Those two discounts alone amount to some \$22,000 per 110-car shuttle train. When the shuttle train rate discount itself is added, the total discount available to a wheat shuttle train operating from a Montana origin to a port at the Pacific Northwest (the most common destination for Montana wheat) is approximately \$59,125 per train, which is the equivalent of about \$ 0.15 per bushel compared to the rates paid by an elevator shipping 52-car units. The spread favoring shuttles is even greater for an elevator shipping 26 cars at rates exceeding those for 52 car shipments.

The \$ 0.15 per bushel advantage available to wheat shuttle train shippers does not come without a cost to the elevator, farming, and governmental communities in Montana. In order to load the wheat shuttle train within 15 hours, as necessary to earn the per car rapid loading discount, the origin elevator has to equip itself with high speed loading equipment and tracks long enough to accommodate the shuttle train without interrupting the loading process for switching. These alterations to an existing facility are estimated to cost several million dollars, excluding the cost to acquire any additional land that may be required for

the shuttle train expansion. In some cases the BNSF is believed to be defraying some of the costs incurred by some elevators for their investment in track and shuttle infrastructure. Of course, if a new facility is built to handle wheat shuttle trains, the land, track, and elevator equipment costs to satisfy the shuttle program requirements likewise add many millions of dollars to the investment.

Elevators that invest in shuttle train loading facilities generally are rewarded in one of two ways, or perhaps in both ways. First, if the origin carrier wants to provide an inducement for the construction of a shuttle loading facility, it can offer to contribute to the shuttle loading construction costs. This may have been the case at several shuttle origins in Montana. When this occurs, the elevator must be enlarged or built at a location agreeable to the railroad and the construction assistance will take the form of a rebate or discount per carload shipped, sometimes after the elevator meets a minimum shipping requirement annually. Such refunds normally cease after a certain number of years or when a maximum agreed contribution has been made by the carrier.

A longer term economic advantage to the shuttle elevator flows from the rate advantage afforded by the shuttle program when compared with rates available to other elevators that are vying for the same origin wheat production. The shuttle elevator operator maximizes the benefits of the shuttle facility by putting as much wheat through it as possible, not only to earn any volume-based rebates that the origin carrier may offer, but also to earn the margins that the market offers on wheat trades.

One might wonder why it is that a smaller grain elevator would seemingly stand idly by while another company invested in shuttle-loading capacity. The answer often lies with the railroad, which is not willing to subsidize shuttle elevator construction costs for two competitive facilities when just one can meet the carrier's anticipated shuttle loading needs from that particular grain production area. The railroad may not stop the construction of a competitive shuttle origin facility, but its unwillingness to contribute to the construction costs through rate refunds or track allowances places the subsidized origin facility at a distinct advantage.

Because the ground simply does not yield enough wheat to support two high-speed, high-volume loading facilities that are situated in relatively close proximity, the elevator with a railroad-furnished subsidy has an advantage that deters the construction of a competitive shuttle loader. The effect of these actions by the railroad in assisting some elevators but not all contributes to what is called "forced sourcing" in the industry. Forced sourcing is not just limited to agricultural movements but is found in coal, chemicals and other industries as well.

To attract large volumes of wheat, the shuttle operator may well offer the farmer a better price for wheat delivered to the elevator than the price being offered by a competitive facility that does not have the lower shuttle rates available. As indicated, the competitive advantage provided by the shuttle program may be as much as \$ 0.15 per bushel, which is a very significant amount in the marketplace. An elevator that has a \$ 0.15 per bushel advantage over a competitor is

positioned to attract a great deal of wheat away from that competitor by offering a higher price to farmers who are willing to deliver that wheat to the shuttle facility.

The shuttle system may appear beneficial for the shuttle elevator and for the farmer delivering wheat to that elevator, but these benefits may be illusory, at least for the farmer. Although the shuttle elevator may offer a better price for delivering wheat than a smaller, non-shuttle elevator, the farmer selling to the larger elevator in all likelihood will have a much greater cost to get that wheat to the elevator than would be incurred if the wheat could just be delivered in a normal farm truck to a local, smaller grain elevator as outlined in the studies above.

Shuttle elevators require much longer truck trips for most farmers. When farmers sell to a nearby local elevator, they generally use their farm trucks to deliver the wheat to the elevator, making as many of the short trips as it takes. Wheat is not a dense grain. In Montana, the average yield is approximately 35 bushels per acre. Thus, for each 110-car wheat shuttle train, at approximately 3,750 bushels per car, some 412,000 bushels of wheat must be delivered to the elevator. (These figures disclose why competition between shuttle elevators for the same acreage output is a daunting gamble and why a single shuttle elevator may tend to dominate an entire growing region.) Just 10 shuttle trains a year consume over 4 million bushels of wheat. It takes some 114,000 producing acres to produce such a quantity, and that acreage may spread out over a radius of up to 50-100 miles.

This data illustrates why there is a significant cost attached to delivering wheat to a shuttle facility. Because shuttle facilities are distant from each other

for many farmers, the trip to a shuttle elevator is longer and more expensive for the average wheat farmer, as shown by the 2006 Montana Rail Grain Transportation Survey. These longer trips have several economic consequences.

First, they require more man-hours of farm labor if the farmer's own truck is used, which has a cost to the farmer. Based upon the 2006 Montana Rail Grain Transportation Survey, 70% of the movements are in the farm trucks. Second, they require investments by farmers in larger trucks. More and more farmers are being forced to invest in full-size, 18-wheel trucks (which are still classified in the study as farm trucks) to move grain from the farm to the shuttle elevator in order to avoid a multiplicity of trips in smaller farm trucks. If a farmer chooses not to make the larger truck investment directly, and hires a trucker, the cost exists nevertheless. Third, the longer trips require the purchase of more truck fuel. While these types of costs fall more heavily on farmers who live a greater distance from the shuttle elevator than those fortunate enough to live nearby, on average the farming community is paying a great deal more to get wheat to a shuttle elevator than it did to get wheat to a local elevator that shipped smaller units.

Because the shuttle elevator has a strong economic incentive to attract as much wheat as possible, it will bid enough to the farmer to compensate for the expenses of moving wheat to the larger elevator, but the benefit to the farmer stops there. The shuttle elevator understandably will offer no higher a bid to the farmer than is necessary to induce the movement of grain to the shuttle elevator, and will tend to keep for itself whatever other profits are derived from the lower

shuttle rate structure unless and until forced by other market considerations to act otherwise. Thus lower shuttle rates do not necessarily result in a significantly higher farm income even when elevator bids to farmers are increased by the shuttle loader, because the increased bids are largely offset by increased farmer costs.

The party likely to suffer most in the short term from the railroad's preference for a shuttle rate structure is the community as a whole and its governmental subdivisions. To make the shuttle network function efficiently for the benefit of the railroad, it is indisputable that grain must travel longer distances in heavier trucks over state and county roads (see study results above). These increased road burdens come at a substantial cost to local government and all taxpayers.

Of course, any increase in State expenses due to increased hauling to ever more distant elevators will be reflected ultimately in state and local taxes. Collectively, these costs represent a real transfer of wealth from state and public treasuries to the railroad, which is the primary beneficiary of the shuttle program. What is occurring in Montana is that rail service is acting as a force to impose more traffic on highways, rather than acting as railroads portray themselves in TV commercials, as the savior of America's highways.

## **VIII. WHAT WILL HAPPEN WHEN THE RAILROAD SPONSORED SHUTTLE PROGRAM IS EFFECTIVE IN ELIMINATING THE NON-SHUTTLE ELEVATOR FACILITIES?**

In the short run, the shuttle elevator appears to be a beneficiary of the shuttle train program. But its advantages stem to a great extent from the rate relationship between shuttle rates and those applicable to smaller units, a differential that enables the shuttle elevator to outbid the non-shuttle elevator, based on lower relative rail rates. Eventually, however, and probably in the not too distant future, the highly successful BNSF shuttle program will drive the smaller elevators entirely out of business, especially as rail service seems to be more available for shuttle than for other services according to the survey. With their demise, there no longer will be rail service for less-than-shuttle quantities of wheat and other crops such as barley, peas, lentils and other pulse crops that depend on small elevators and move in small shipment quantities. Additionally, many smaller elevators handle inbound fertilizer movements.

The only wheat rate in the marketplace will be the shuttle rate, and there no longer will be any reason for the railroad to offer a lower shuttle rate designed to attract wheat away from smaller elevators. The controlling railroad will be at liberty to raise its shuttle rates without any such constraint.

If shuttle origins have no other origin elevator competition, they will be under no origin market compulsion to offer reduced rates to farmers regardless of how far the farmer may have to truck wheat to the elevator. Normally, increased rail rates result in lower elevator bids to farmers. The long run result of a suc-



cessful shuttle program that dominates or eliminates elevator competition in any growing area is a long run lower price (higher transportation price) to the farmer, even if the farmer gets a higher apparent price in the short run.

## **IX. THE POTENTIAL LOSS OF LESS THAN SHUTTLE ELEVATORS WILL ALSO RESULT IN THE LOSS OF MARKET WINDOWS FOR NON-WHEAT CROPS**

The long term effects of the shuttle elevator program and the resulting elimination of smaller, less than shuttle load elevators will result in the potential loss of market windows for all of the other important crops grown as alternative or rotational crops on the dryland wheat farms in Montana and other states. **This is a major concern to the Montana farm organizations.** It has already happened with Barley over the last 15 years, as shown in the *National Barley Growers Association* Opening Comments in Surface Transportation Board's proceeding entitled Ex Parte 665 – Rail Grain Transportation.

[http://www.stb.dot.gov/filings/all.nsf/457f7ba95a516a62852567d900574766/3504607b8f43872585257218004a03d7/\\$FILE/217992.PDF](http://www.stb.dot.gov/filings/all.nsf/457f7ba95a516a62852567d900574766/3504607b8f43872585257218004a03d7/$FILE/217992.PDF). The railroad program of forced sourcing wheat movements on the Great Plains and in the Pacific Northwest will lead to curtailment of alternative crop production and marketing. As outlined in the survey, railroads are providing less transport capacity and power for small, non-shuttle grain shipments each year. In turn, that curtails the farmers' ability to plant crops that are an alternative to wheat, even when higher market prices for alternative crops are available or good land management practices suggest crop

rotation. Reduced transport capacity and options, tend to lead to lower producer income because higher transport costs are borne by the producer.

## **X. U.S. GENERAL ACCOUNTING OFFICES ISSUES REPORT SHOWING CONCENTRATION OF RAIL POWER IN MONTANA**

The U.S. General Accounting Office Report 07-94, *Industry Health Has Improved, but Concerns about Competition and Capacity Should Be Addressed*, [GAO-07-94,http://www.gao.gov/new.items/d0794.pdf](http://www.gao.gov/new.items/d0794.pdf) October 6, 2006 outlines the concentration of railroad power and expresses concern to the Surface Transportation Board about the level of rail competition and the high level of freight rates in Montana.

## **XI: UPDATE: RECENTLY ANNOUNCED PROPOSED SHUTTLE FACILITIES SHOW POSSIBLE COMPETITION DEVELOPMENT BETWEEN SHUTTLE FACILITIES IN THE STATE**

Since the original draft of this report was issued on February 23, 2007, two interesting developments have occurred in the shuttle loading arena.

On March 23, 2007, the Great Falls Tribune carried an announcement by ConAgra Foods at Moore, Montana indicating preliminary plans to expand its 52-car facility to a high-speed 110-car shuttle facility. This facility if built, would be located in Fergus county approximately 20 miles from the United Harvest shuttle facility located at Moccasin. The proposed facility would be a straight line terminal as opposed to the circular track facilities. ConAgra has continued development plans holding hearings with town folks about the potential workarounds for

road blockages, etc. ConAgra has indicated that this facility will handle primarily wheat and possibly barley.

Additionally, in April, 2007, New Century Ag (New Century Ag is the result of a merger between Farmers Elevator Company of Fortuna headquartered in Fortuna, ND and Golden Plains Ag of Crosby, ND) located at Westby, Montana announced plans to construct a 100 car loading facility on the Dakota, Missouri Valley and Western RR at Westby, Montana in the NE corner. The DMVW railroad connects with the CP/SOO line and will provide movements east and west for the newly proposed facility.

These newly announced facilities being placed in areas that will tend to provide some competition to other shuttle loading facilities.

## **SUMMARY AND CONCLUSIONS**

### ***The Montana Rail Grain Transportation Survey and Study 2006 shows:***

- Montana's Rail System is Shrinking
  - 1975: 5,100 miles
  - 2005: 3,200 miles
- Montana's Rail System is Dominated by One Class I Railroad (BNSF)
  - 94% of Montana's rail system-#1 in US
  - 91% of tons hauled
  - 92% of revenue
- Developing Trends
  - Increased short lining & potential abandonments
  - Transportation cost shifting from Railroads to Farm producer and State and local governments
  - Decreasing intermodal facilities
  - Decreasing number of grain elevators and marketing outlets for Montana agricultural crops
- Montana's Grain Elevator System Continues to Consolidate

- In 1984, the Montana grain elevator system consisted of over 189 elevators. Most of the facilities in Montana were 52 and 26 car loading facilities with the rest being facilities that loaded single cars.
  - Today the state is served with 12 Grain Shuttle Facilities and about 109 single, 26 car and 52 car facilities.
- Vast areas of the Montana have lost competitive service in ICC/STB approved mergers over the last thirty years;
- Grain is being hauled further and further over the state and county highway systems;
- The majority of farm producers have experienced increasing hauling distances over the past 10 and 20 years;
- Those farm producers experiencing increased haulage are hauling over 3 times as far as those farm producers who have not experienced any increased hauling distances;
- The non-wheat crops are experiencing significantly greater hauling distances than wheat crops, further burdening alternative and rotational crop practices;
- Some counties show average hauling distances upwards of 80+ miles;
- The 2006 harvest in Montana could be best described as a tale of two cities – with Winter wheat showing average to above average yields and Spring wheat, durum, barley, pulse, peas and lentils showing average to below average yields;
- The vast majority of farm producers have the capabilities of storing most if not all of their grain production;

- Even with the diversity of yields, most Montana farm producers experienced elevator pluggings multiple times during harvest – due to lack of rail cars;
- With the multiple elevator pluggings, most farm producers held onto to their crops and waited for the rail car shortages to abate rather than take their grain to more distant elevators;
- Farm producers generally thought these delays and elevator pluggings were ‘about average’ and par for the course;
- Farm producers are finding unloading delays at ever more distant elevators each year;
- As the elevator system is being forced to larger, more rail efficient shuttles coupled with the loss of thousands of miles of rail branchlines in the state, the costs of transportation for gathering grain seem to be shifting from the railroads to the farm producers and to the State and local highway system;
- The service levels do not seem to be improving with the transition to larger grain handling facilities.

## **XII. CONCLUSION**

Montana continues to experience very high freight rate levels and forced sourcing practices by the dominant major Class I railroad throughout the growing areas of Montana for the purpose of facilitating a railroad plan for operations that serves to provide efficiencies for and benefits to the railroad. Montana farm producers embrace the concepts of increasing efficiency in the marketing of grain, however it is equally important that marketing outlets for non-wheat crops be

maintained in the state and that the railroad commits to provide reasonable rates and service levels to enable the marketing of non-wheat crops in the state. Montana farm producers are hauling further on State and County roads and facing the real prospect, in the not too distant future, Montana will have very few elevators in the system to serve the non-wheat crops and there will be a diminishment in the competition levels in the grain elevator systems operating in the state.

The long-term effects of driving out the non-shuttle elevators, shifting the gathering costs to the farm producer and to the State and local governments will continue to create an economic burden on farm producers and state governments and in all likelihood result in long-term higher rail transport prices for Montana grain producers. While there may be a ray of hope that some competition may be developing within the shuttle facilities', with the announcement in the last two months of the proposed shuttle facilities at Moore and Westby, the increasing loss of smaller elevators handling less than shuttle loads (alternative crops), is of continuing concern to the RSCC.

[www.rscg.mt.gov](http://www.rscg.mt.gov)

Please complete this survey and return it to us at your convenience. We want you to know we appreciate your time and effort – it will help us all, help ourselves become more knowledgeable. The more responses the better the data collected. The results of the survey, once tabulated, will be available on our website: [www.rscg-mt.gov](http://www.rscg-mt.gov) Thank you! We are requesting names and addresses in order to facilitate follow-up and to allow us to provide completed survey information to each of you. Your personal information will not be released in the public domain.

<b>Name</b>			
<b>Address</b>			
<b>City, State, Zip</b>			
<b>County</b>			
<b>E-mail</b>			
<b>Phone</b>			
<b>Fax</b>			
<b>Please fill in and where necessary circle answer that best fits your farm situation</b>			
County in which harvest occurred – if more than one county – please fill in.	1. _____	2. _____	3. _____
Was your 2006 harvest above average, near average or below? Please circle appropriate response for each crop group.	<b>Above Average</b> Winter Wheat Spring Wheat Other	<b>Near Average</b> Winter Wheat Spring Wheat Other	<b>Below Average</b> Winter Wheat Spring Wheat Other
Types of crop harvested	Winter Wheat	Spring Wheat	Other
Did your farm store part of your 2006 harvest in on-farm storage?	Yes	No	
What % of your crop was stored on-farm if any.	Winter Wheat _____ %	Spring Wheat _____ %	Other _____ %

How far did you haul your 2006 grain to market?	0-10 miles	11-20 miles	21-40 miles	41-60 miles	61-80 miles	81-100 miles	100-120 miles	120+ miles			
How far did you haul your grain to market <u>10</u> years ago (1996) if applicable?	0-10 miles	11-20 miles	21-40 miles	41-60 miles	61-80 miles	81-100 miles	100-120 miles	120+ miles			
How far did you haul your grain to market <u>20</u> years ago (1986) if applicable?	0-10 miles	11-20 miles	21-40 miles	41-60 miles	61-80 miles	81-100 miles	100-120 miles	120+ miles			
What kind of highway are you moving your 2006 grain to market on?	US Primary or Interstate _____%		State or Secondary Highway _____%			County or other highway _____%					
What percentage of winter wheat moved was old crop (pre-2006) and what percentage was new crop of the 2006 movements made from your farm?	Winter Wheat Old Crop (pre-2006) _____%			Winter Wheat New Crop (2006) _____%							
What percentage of spring wheat moved was old crop (pre-2006) and what percentage was new crop of the movements made from your farm?	Spring Wheat Old Crop (pre-2006) _____%			Spring Wheat New Crop (2006) _____%							
What percentage of 'other' (not spring or winter wheat) crop moved was old crop (pre-2006) and what percentage was new crop of the movements made from your farm?	Other Crop - Old Crop (pre-2006) _____%			Other Crop - New Crop (2006) _____%							
How many elevators did deliver your farm grain to this year?	One			Two		Three or more					
Were any of your elevators you utilized plugged (unable to accept grain) at any time during the harvest period?	Yes			No							
If an elevator became plugged that you normally utilize – how long was it plugged? – if you know	One day			Two – four days		More than four days					
Did the elevator that became plugged – become plugged more than once during the harvest?	Yes			No							
Do you know the reason for the elevator becoming plugged?	Lack of Rail Cars			Mechanical Problem		Other _____					
If your traditional elevator could not accept your grain – did you transport to an alternative elevator site or just hold off delivery?	Transport to alternative elevator			Hold off delivery until elevator could accept grain							
Please rate your harvest transportation delays	Worse than normal			About normal		Less than normal					
Were the transportation delays more prevalent at smaller (less than shuttle loading) elevator facilities or larger ones – shuttle (110 ca)?	Smaller elevator			Larger (shuttle) elevator							
Did you transport any of your grain to a 110 car shuttle facility?	Yes			No							
If your farm transported any of your grain to a shuttle facility – what percentage of your grain was moved to a shuttle (110 car) facility?	Winter Wheat _____%			Spring Wheat _____%		Other _____%					
What is your Average wait time at your Elevator in hours?	Elevator 1 _____		Elevator 2 _____		Elevator 3 _____						